

## The Weather

Today: Mostly cloudy. Highs in the upper 60s°F (20°C)  
Tonight: Cloudy. Lows near 55°F (13°C)  
Tomorrow: Afternoon showers. Highs near 65°F (18°C)  
Details, Page 2

Volume 128, Number 43

Cambridge, Massachusetts 02139

Tuesday, September 30, 2008

# Hockfield Delivers State of the Institute, Discusses Endowment

By Natasha Nath

President Susan J. Hockfield delivered the State of the Institute address in Kresge Auditorium yesterday, highlighting MIT's continued growth amidst troubled times. Her message was echoed by the other speakers, Provost L. Rafael Reif, Chancellor Phillip L. Clay PhD '75, and Executive Vice President and Treasurer Theresa M. Stone.

"These are turbulent times," Hockfield declared, a statement that was repeated several times throughout the forum. "No one can predict where we will be at the end of the week." Even so, MIT is in "really terrific shape," she said.

Hockfield then went on to describe the work being done to build a framework that harnesses finances and uses endowments in the best possible way. This includes a 'rebalancing' program, which has made it possible for MIT to operate from a balanced budget for the first time in many years. "A balanced budget means we can focus on the future," Hockfield said. "We cannot rob the future to pay for today."

Consequently, the Institute has adopted new endowment spending policies to support students and faculty. Hockfield said that she is confident that these new policies will help the Institute prepare for "the rocky times



MAKSIM IMAKAEV—THE TECH

**Susan Hockfield discusses the Institute's budget and the need for MIT to take leadership roles regarding economic and energy issues during the annual State of the Institute Forum on Sept. 29 in Kresge.**

ahead." MIT's endowment only saw a 3.2 percent return this year, considerably less than the 8.6 percent return posted by Harvard University.

Hockfield also disclosed that new commitments from alumni had

Speech, Page 12

# Shift From Double Degrees to Double Majors Removes Extra 90 Units Req.

By Pearle Lipinski

Two years after a recommendation by the Task Force on the Undergraduate Educational Commons, MIT is transitioning from double degrees to the double major program which eliminates the need for 90 additional units for the second degree program in an effort to make the study of two fields less constraining for students.

The double major transition was one of a series of recommendations the task force, a body gathered under former MIT President Charles M. Vest in 2003 to review and evaluate MIT's undergraduate curriculum, made in October 2006. Traditionally, students wishing to be recognized for proficiency in two fields of study had to accrue all required units for the first degree, from 180 to 198 units, plus an additional 90 units for the second degree. The additional 90 units did not need to be related to the second field.

"Historically, it was harder to [pursue the double degree] because of the extra units — whether or not they had anything to do with the two major fields — and no one really had a clear rationale of why," said Diana Henderson, Dean for Curriculum and Faculty Support. "Some people would have occasionally taken enough courses in a second major but not have enough hours to get the sec-

ond degree acknowledged, and that seemed unfortunate."

The task force and other members of the MIT community realized that the old system favored those students coming in with significant Advanced Placement, International Baccalaureate, transfer, and advanced standing exam credit, and the new require-

ments aim to level the playing field. The task force did not want this requirement to restrict students from broadening their education and pursuing more than one interest. Furthermore, acquiring two diplomas implied the full completion of two

Double Majors, Page 12



MONICA GALLEGOS—THE TECH

**Despite the soggy weather, the glass pumpkin sale was still a success as many flocked to Kresge Lawn to admire and purchase hand-crafted glassware last Saturday.**

# MIT E-Voting Project To Analyze Experience Of Voters in Election

By Florence Gallez

As the election approaches, a question lingers with increasing urgency on the minds of concerned citizens: to e-

**Analysis** vote or not to e-vote?

The question, of course, cannot be defined so simplistically, as electronic voting refers to several types of voting that include electronic means of both casting and counting the vote. These systems both present pluses and minuses, and have been the focus of a public backlash amid growing security problems.

Following the Florida fiasco of 2000, the nation's recent rush to embrace e-voting has been hampered by controversy over issues of security, reliability, privacy, and cost.

The release earlier this month of a short video by a group of scientists at the University of California Santa Barbara showing how a single person can hack an election on a Sequoia touchscreen voting system undetectably is the latest in a series of such demonstrations over the past two years. The hack demonstration also shows how the so-called "security-seals" placed on such machines after they have been programmed for an election can be easily defeated without detection.

These enormous flaws reinforce the insecurities surrounding the use of electronic voting technology and the need for better technology and legislation.

Amid growing evidence of security flaws and pressure to stop the use of similar systems in American elections, researchers at the Caltech-MIT Voting Technology Project are hard at work analyzing the security and impact of e-voting systems.

The Caltech-MIT Project

"It's a general program that stud-

ies a lot of issues, including e-voting. One of the issues we are working on is trying to figure out ways that voters can make sure their vote has been counted, without receiving a paper receipt," said Charles H. Stewart III, head of MIT's political science department and a member of the VTP faculty. "You don't want to carry a piece of paper around," he said in a telephone interview last week.

Established by the California Institute of Technology President David Baltimore and MIT President Charles M. Vest in December 2000 to respond to the need for academic guidance in the wake of the 2000 U.S. Presidential Election, the Caltech-MIT VTP seeks to improve voting in the United States through the use of the latest technologies. Its tasks include evaluating the reliability and administrative practices of existing voting systems, establishing guidelines for their reliability and performance, and proposing standards for the design of new voting technologies.

Judging by the titles of the posts on the initiative's blog, they still have a lot of work to do. "Plan for the worst," the Election Assistance Commission urges in its Election Management Guidelines, and "Voter Registration Problems Reported in Michigan," the blog quotes the Detroit Free Press as saying.

With regards to the upcoming election, MIT is trying to collect as much data as possible through two data-related projects of the Caltech-MIT initiative.

The first one is simply collecting the Election Day returns from the states, so that one can see the difference electronic voting machines made, Stewart said. "All states report information about the machines they use and the problems they encountered."

The other big data project is the development of the first large-scale public opinion poll of American vot-

E-Voting, Page 14

## In Short

¶ **Have you registered to vote?** If not, drop by the first floor of the Student Center for the MIT Voter Registration Drive, sponsored by the Undergraduate Association and *The Tech*, this Wednesday through Friday from 9 a.m. – 5 p.m.

¶ **The deadline to waive MIT Student Extended Insurance is today.** For more information or to waive coverage, visit [http://medweb.mit.edu/healthplans/student/extended\\_plan.html](http://medweb.mit.edu/healthplans/student/extended_plan.html).

Send news information and tips to [news@the-tech.mit.edu](mailto:news@the-tech.mit.edu).



Comics

Page 6



Do you own a t-shirt for more than 50 percent of the software you run?

Page 9

## OPINION

Should MIT join the Amethyst Initiative?

Page 5

The state of the Institute hacker

Page 6

World &amp; Nation . . . . . 2

Opinion . . . . . 4

Campus Life . . . . . 9

Sports . . . . . 16



# WORLD & NATION

## Citigroup Takes Over Wachovia

By Eric Dash

THE NEW YORK TIMES

The crisis gripping the nation’s banks took a dangerous turn on Thursday as investors’ confidence in even the largest and strongest institutions spiraled lower.

Financial shares plunged 16 percent on one of the blackest days for the American stock market since the 1987 crash.

After the House of Representatives rejected a rescue for the financial industry Monday, fears grew that more banks, particularly small and midsize lenders, could run into trouble unless a new plan emerges quickly.

Even the trio of banks that has emerged from this crisis as the largest in the industry — Bank of America, JPMorgan Chase and Citigroup — saw their shares fall more than 10 percent Monday as anxiety overwhelmed the markets. Goldman Sachs and Morgan Stanley, which transformed into bank holding companies last week, fell more than 12 percent.

Regional banks were punished even more severely as investors scrambled to figure out which might fall next in the absence of a bailout plan. National City Corp., Downey Financial Corp. and Sovereign Bancorp, lenders pressured by substantial exposure to soured mortgages, were especially hard-hit, falling 63 percent, 48 percent and 36 percent respectively on the heels of the government’s seizure on Thursday of Washington Mutual, the largest savings and loan.

## Pirated Freighter Cornered by Navy

By Jeffrey Gettleman

THE NEW YORK TIMES

NAIROBI, KENYA

American warships on Monday surrounded an arms-laden freighter hijacked by pirates, sealing off any possible escape in a standoff near the craggy Somalia coastline.

Lt. Nathan Christensen, a Navy spokesman, said that “several destroyers and missile cruisers” had joined the American destroyer that was already following the hijacked vessel. He would not specify the number of warships or what they would do if the pirates refused to surrender.

“Our intent is for the ship not to offload any of its cargo,” he said, referring to the 33 battle tanks and large supply of grenade launchers and ammunition now in the hands of the pirates.

The ship, operated by a Ukrainian arms supplier, was hijacked Thursday in Somalia’s pirate-infested waters. The American military, among others, fears that the pirates could sell the dangerous cargo to Islamist insurgents battling Somalia’s weak government.

And the controversy over where exactly the tanks were going has heated up again.

## Olmert Says Israel Must Withdraw From West Bank to Attain Peace

By Ethan Bronner

THE NEW YORK TIMES

JERUSALEM

Prime Minister Ehud Olmert said in an interview published Monday that Israel must withdraw from nearly all the West Bank as well as East Jerusalem to attain peace with the Palestinians and that any occupied land it held onto would have to be exchanged for the same quantity of Israeli territory.

He also dismissed as “megalomania” any thought that Israel would or should attack Iran on its own to stop it from developing nuclear weapons, saying the international community and not Israel alone was charged with handling the issue.

In an unusually frank and soul-searching interview granted after he resigned to fight corruption charges — he remains interim prime minister until a new government is sworn in — Olmert discarded long-standing Israeli defense doctrine and called for radical new thinking in words that are sure to stir controversy as his expected successor, Foreign Minister Tzipi Livni, tries to build a coalition.

# Dow Plunges 777 Points as Bailout Plan Fails to Pass

By Vikas Bajaj and Michael M. Grynbaum

THE NEW YORK TIMES

Even before the opening bell, Monday looked ugly.

But by the time that bell sounded again on the New York Stock Exchange, seven and a half frantic hours later, \$1.2 trillion had vanished from the U.S. stock market.

What had started 24 hours earlier, with a modest sell-off in stock markets in Asia, had turned into Wall Street’s blackest day since the 1987 crash. The broad market plunged almost 9 percent, its third-biggest decline since World War II. The Dow Jones industrial average tumbled nearly 778 points to 10,365.45.

Across Wall Street, no one could quite believe what was happening on the floor — the floor of the House of Representatives, not the stock exchange.

As lawmakers began to vote on a \$700 billion rescue for financial institutions, the trading desk at Voyageur Asset Management in Chicago went silent. Money managers gaped at a television screen carrying news that seemed unthinkable: The bill was not going to pass. Shortly after 1:30 p.m., the rescue was rejected.

“You just felt like the world was unraveling,” Ryan Larson, the firm’s senior equity trader, said. “People started to sell and they sold hard. It didn’t matter what you had — you sold.”

Frustration, and then panic, coursed through the markets. Investors feared the decision in Washington would imperil the financial industry, as well as the broader economy.

At the Federal Reserve and other central banks, policymakers were also anxious. Even before the vote on Capitol Hill, central bankers tried to jump-start the credit markets by offering hundreds of billions of dollars in loans to banks around the world. But the neither the stock nor the credit markets appeared to respond. Just 24 hours earlier, few imagined Monday would play out this way.

On Sunday afternoon, the secretary of the Treasury, Henry M. Paulson Jr., and the speaker of the House, Nancy Pelosi, announced that they had agreed on the terms of a bailout.

But while congressional aides and lawmakers worked on the details, the credit crisis that began more than a year ago in the American mortgage

market was setting off new alarms in Europe.

Shortly before 6 p.m. New York time on Sunday, Belgium, the Netherlands and Luxembourg agreed to invest \$16.2 billion to rescue a big bank, Fortis. A few hours later, the German government and a group of banks pledged \$43 billion to save Hypo Real Estate, a commercial property lender. At 2:50 a.m., news came that the British Treasury had seized the lender Bradford & Bingley and sold the bulk of it to a Spanish bank.

“We will continue to do what is necessary,” a somber Gordon Brown, the British prime minister, told reporters at 10 Downing St. in London. “The stability of the system comes first. We need a stable financial system.”

In Tokyo, where stocks had opened higher in early trading on Monday, worries quickly set in. Traders returned from lunch to reports suggesting the financial crisis was taking a toll on the global economy. Markets across Asia began to sell off.

In Tokyo, the Nikkei 225 sank 1.5 percent. In India, stocks fell nearly 4 percent. In Hong Kong, where a big bank, HSBC, raised key lending rates because of the turmoil in the credit markets, the Hang Seng Index tumbled nearly 4.3 percent.

As the drama unfolded in Asia, a major American bank was in trouble.

Regulators in Washington were rushing to broker the sale of Wachovia Corp., the nation’s fourth-largest commercial bank, to Citigroup or Wells Fargo.

At about 4 a.m., Sheila Bair, the chairman of the Federal Deposit Insurance Corp., called executives at Citigroup to say Wachovia was theirs.

But by this time, stocks were tumbling in European trading as investors reacted to the failure of Bradford & Bingley in Britain and the government support of Fortis and Hypo.

As investors in New York were getting up, the credit markets were again flashing red as banks reported higher borrowing costs. Investors continued to seek safety in Treasuries, driving up the 10-year note up 2-9/32, to 103-15/32, and the yield, which moves in the opposite direction from the price, to 3.58 percent from 3.85 percent late Friday.

When trading opened on the New York Stock Exchange at 9:30, stocks immediately fell 1 percent.

Noting the stress in the money markets, the Fed announced at 10 a.m. that it would increase to \$620 billion its program to lend money through foreign central banks, up from \$290 billion. The central bank also said it would double the amount of money it lends out domestically through an auction program to \$300 billion.

Many eyes on Wall Street turned to National City, the Cleveland-based bank, which has a \$20 billion portfolio of troubled loans it is trying to sell. National City’s shares plummeted 50 percent to \$1.50 in early trading, prompting Peter E. Raskind, the bank’s chief executive, to assert that the bank was sound.

“Clearly we have had days and weeks that have been more fun,” Raskind said in an interview. “It’s not overly dramatic to say that investors are panicking. You can see it in the market and we can feel it.”

In New York, a group of 10 executives at Bessemer Trust huddled to discuss the markets and a question came up: What would it take to restore confidence to the credit markets? There were few upbeat answers, though one member of the group said the Citigroup takeover of Wachovia was a creative solution that could pave the way for more consolidation in the banking industry.

“It is the type of solution that makes good sense in these challenging times,” Marc Stern, the firm’s chief investment officer, said as he recounted the meeting.

But Stern and his group would soon be dismayed by what was happening in Washington.

At 1:30 p.m. the House began to vote on the rescue package that Paulson and congressional leaders negotiated over the weekend. The vote was carried live not only on C-SPAN but also on CNBC, CNN and other networks. About 15 minutes later, when it became clear that the legislation was in trouble, the selling picked up in the stock market.

At his home office in Great Neck, N.Y., Edward Yardeni, the investment strategist, received a series of terse e-mail messages from clients and friends. “Is this the end of the world?” one asked. Another sent a simple plea: “Stop the world, I want to get off.”

# WEATHER

## October Sky

By Garrett P. Marino

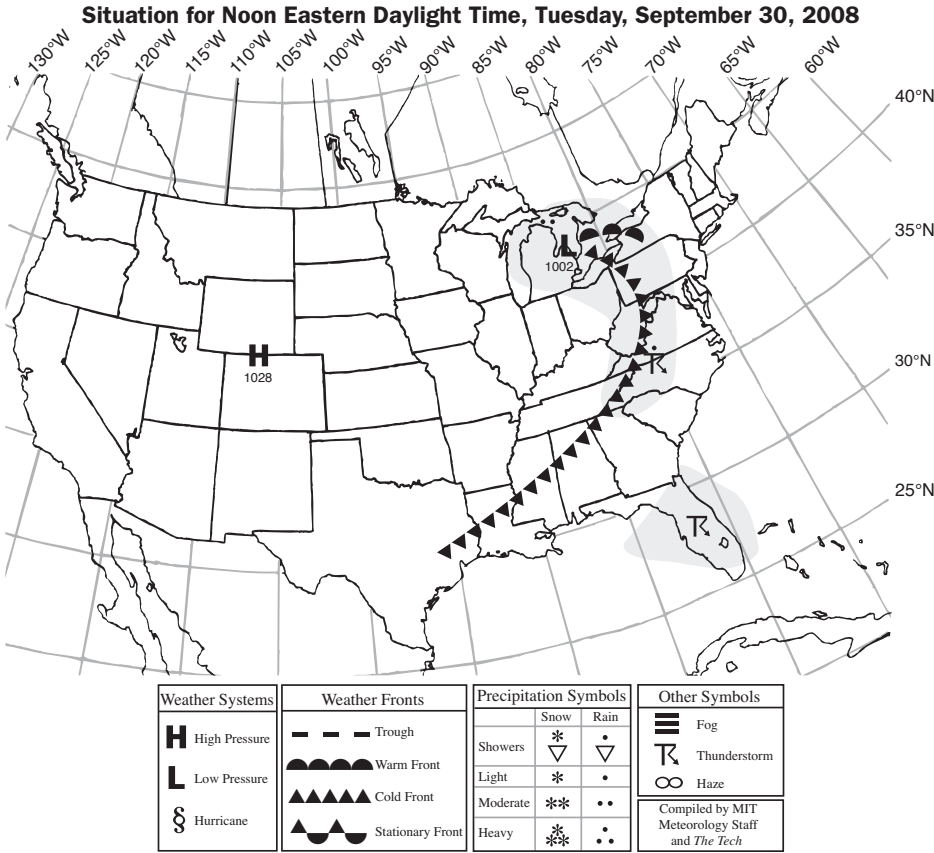
STAFF METEOROLOGIST

On Sunday, Hurricane Kyle passed quietly off to our east by only 200 miles, bringing no more than a few showers to the Boston area during its passage. As we enter October tomorrow, weather phenomena such as hurricanes and thunderstorms in our vicinity become even a more remote possibility as the ocean cools and the solar angle rapidly decreases. October in Boston can still be very pleasant — combine fall foliage with average high temps in the mid 50s (13°C) to mid 60s (18°C) and it’s not hard to see why.

The beginning of October 2008 will bring near-average conditions over the Boston area. After a cold front passage tomorrow, skies will rapidly clear and result in sunny skies for the remainder of the workweek and weekend. Enjoy!

### Extended Forecast

**Today:** Mostly cloudy. Highs in the upper 60s°F (20°C).  
**Tonight:** Cloudy. Lows near 55°F (13°C).  
**Wednesday:** Afternoon showers. Highs near 65°F (18°C).  
**Wednesday Night:** Showers early, with clearing skies late. Lows near 55°F (13°C).  
**Thursday:** Mostly sunny and pleasant, with highs near 70°F (21°C).





# With Bill Stalled, Fed and Treasury Have Other Options

By Edmund L. Andrews and Mark Landler

THE NEW YORK TIMES

WASHINGTON

For the Federal Reserve and the Treasury Department, it is crunch time.

Without the broad bailout plan they invented and lobbied hard for, the two agencies are once again forced to careen from one crisis to another, and to dig deep into their toolkits to rescue the global financial system. Even before the House stunned the world on Monday by rejecting the Bush administration’s bailout bill, the Fed was already resorting to the oldest action in its book: printing money.

With money markets around the world seizing in fear, the Fed on Monday announced that it would provide an extra \$150 billion through an emergency lending program for banks, and an additional \$310 billion through so-called swap lines with foreign central banks to help money markets from Europe to Asia.

It was an extraordinary display of financial power, and it reflected acute new anxiety at the Fed and central banks around the world that the crisis

of confidence in American financial markets had metastasized to money markets everywhere.

That was on top of the \$230 billion the Fed borrowed last week so it could finance its previous efforts to prop up the American International Group and other institutions.

But these are only the latest in a long series of jaw-dropping departures from normal policy that the Fed has undertaken this year as it seeks to inject vast amounts of capital into the financial system. And they are unlikely to be the last.

Even if Congress refuses to pass the bailout measure, there is more money where that came from. The Treasury Department has already created a series of “supplemental” Treasury securities to finance the Fed’s activities, and there is no limit to how many more it can issue and sell.

Treasury and Fed officials made it clear after the House vote on Monday that they still had a wide range of tools at their disposal.

But most of the remaining options are ad hoc, rather than system-wide. The Fed, for example, can lend money to any company it deems too

dangerous to fail by invoking the same Depression-era law it has already used to deal with failing firms like Bear Stearns and AIG.

The Treasury Department, meanwhile, has already vowed to buy up billions of dollars in mortgage-backed securities under the authority it received in the housing bill that Congress passed in the summer.

The bad news is that those attempts have done little or nothing to bolster confidence in the financial markets. Yields on three-month Treasury bills shrank to just 0.29 percent on Monday, a sign that investors were fleeing from any kind of risk, even if it meant earning a return far lower than the inflation rate.

Interbank lending rates climbed to new highs on Monday, as banks became even more fearful about lending to one another than they were last week.

“The liquidity measures are a stop-gap,” said Laurence H. Meyer, vice chairman of Macroeconomic Advisers, a forecasting firm. “You’re funding the banks’ balance sheets, but nobody wants to lend money to them because they’re all afraid of insolvency.”

## China Detains 22 in Milk Case

By David Barboza

THE NEW YORK TIMES

SHANGHAI, CHINA

China said Monday that it had detained 22 people suspected of operating an underground network that intentionally adulterated milk with an industrial chemical, melamine. The contamination has led to the nation’s worst food safety crisis in decades.

The announcement, carried by the official Xinhua News Agency, was the third regarding a mass detention of suspects in the contamination, which has sickened more than 50,000 children, caused the deaths of at least four from kidney stones, and led to recalls of products in China and abroad suspected of containing adulterated Chinese milk powder.

On Sept. 14, the government said 19 people had been detained, and on Sept. 19 it reported the detention of 12 more. The government did not explain in the Monday announcement how many suspects in all had been detained in the investigation, or whether some had been included in the earlier announcements.

The announcement said that police officers in northern China, the nation’s biggest dairy production area, had raided more than 40 dairy farms and milk stations in Hebei province and seized more than 220 kilograms, or 485 pounds, of melamine, a chemical commonly used to make plastics and fertilizer. Melamine can also be used to illegally inflate the nutrition value of foods by fooling testers measuring protein levels.

The government accused the group of operating as a kind of criminal syndicate, producing melamine in underground factories and then marketing it to dairy farms and milking stations in Hebei province to adulterate the milk for profit.

## Judge Rebukes Prosecutors in Alaska Senator’s Trial

By Neil A. Lewis

THE NEW YORK TIMES

WASHINGTON

The judge overseeing the trial of Sen. Ted Stevens sharply rebuked the Justice Department’s prosecutors on Monday, saying he was considering sanctions because they might have improperly sent a witness away.

The judge, Emmet G. Sullivan, declined a request by Stevens’ lawyers to declare a mistrial, but the episode could prove a significant blow to the prosecution because the judge was clearly angered over the government’s handling of the witness.

“The government made a unilateral decision to put him on a plane and send him away from the court,” Sullivan said. “There may be an inference that can be drawn from this that the government chose not to call him to testify because the government realized his testimony was not helpful.”

Sullivan said he found it “very curious” that the government had sent away the witness, Robert Williams, without telling the court or the defense lawyers, who had also sought his testimony.

Stevens, R-Alaska, who has been in the Senate for 40 years, is charged with knowingly failing to list on congressional disclosure forms more than \$250,000 in gifts and services in the renovation of his home in Girdwood, Alaska.

The witness, Williams, is a senior employee of Veco, the Alaska oil services company that provided the gifts and services. Williams, who supervised the work, had been scheduled to testify for the government.

## You’re Sick, But Is Internet Health Information Correct?

By Tara Parker-Pope

THE NEW YORK TIMES

Are patients swimming in a sea of health information? Or are they drowning in it?

The rise of the Internet, along with thousands of health-oriented Web sites, medical blogs and even doctor-based television and radio programs, means that today’s patients have more opportunities than ever to take charge of their medical care. Technological advances have vastly increased doctors’ diagnostic tools and treatments, and have exponentially expanded the amount of information on just about every known disease.

The daily bombardment of news reports and drug advertising offers little guidance on how to make sense of self-proclaimed medical breakthroughs and claims of worrisome risks. And doctors, the people best equipped to guide us through these murky waters, are finding themselves with less time to spend with their patients.

But patients have more than ever to gain by decoding the latest health news and researching their own medical care.

“I don’t think people have a choice — it’s mandatory,” said Dr. Marisa Weiss, a breast oncologist in Pennsylvania who founded the Web site breastcancer.org. “The time you have with your doctor is getting progressively shorter, yet there’s so much more to talk about. You have to prepare for this important meeting.”

## Shuttle Mission to Hubble Telescope Is Moved to ’09

By Dennis Overbye

THE NEW YORK TIMES

A problem that struck the Hubble Space Telescope on Saturday will delay the final space shuttle mission to service it, moving the launching from next month to next year, NASA officials said Monday.

A crew of seven astronauts was scheduled to blast off in the shuttle Atlantis on Oct. 14 for an 11-day visit to the telescope, which for 18 years has been beaming cosmic postcards to Earth from its orbital vantage point above the atmosphere.

During five spacewalks, the astronauts were set to install two new instruments and repair the telescope’s best camera and a spectrograph, both of which had electrical failures. They were also scheduled to replace the telescope’s batteries and gyroscopes, among other things.

But on Saturday, a channel on a control system known as the Hubble Control Unit/Science Data Formatter — which helps relay data to the ground — failed, causing the telescope to go into a “safe mode” and cease observations. Hubble’s managers expect that activating a backup channel will restore the telescope to service later this week.

But that will leave the telescope with no backup if the new channel stops working, so NASA would like to have the astronauts replace the failed control unit with a spare from the Goddard Space Flight Center.

# Justice Department Inquiry Ties Prosecutor Firings to Politics

By Eric Lichtblau

THE NEW YORK TIMES

WASHINGTON

An internal Justice Department investigation concluded on Monday that political pressure drove the dismissals of at least three federal prosecutors in a controversial 2006 purge, but the White House’s refusal to cooperate in the high-profile investigation produced significant “gaps” in the understanding of who was to blame.

The investigators said they did not have enough evidence to justify recommending criminal charges. But at the urging of the investigators, Attorney General Michael B. Mukasey appointed a federal prosecutor in Connecticut, Nora Dannehy, to continue the investigation and determine if anyone should be prosecuted.

The 356-page report, prepared by the Justice Department’s inspector general and its Office of Professional Responsibility, provides the fullest account to date of a scandal that dogged the Bush administration for months last year over accusations that it had politicized the federal justice system by ousting prosecutors seen as disloyal.

It provided particular detail in the dismissal of David C. Iglesias, a former New Mexico prosecutor who was let go at the prodding of Republican leaders in Washington and New Mexico who were dissatisfied with his work in investigating accusations against Democrats. Despite the denials of the Bush administration, the political pressure was “the real reason” for Iglesias’ dismissal, the report said.

The investigators acknowledged, however, that they could not answer some critical questions because the White House refused to turn over internal documents and to allow interviews with some crucial figures. Investigators interviewed about 90 people in the last year and a half, but three senior administration officials who played a part in crucial phases of the dismissals — Karl Rove, the former political adviser to President Bush; Harriet E. Miers, the former White House counsel; and Monica M. Goodling, former Justice Department liaison to the White House — refused to be interviewed.

But at the same time, the inquiry rejected accusations that the dismiss-

als of two other prosecutors, in San Diego and Phoenix, were designed to thwart political investigations involving Republicans.

The controversy over the dismissals of nine federal prosecutors led to the resignation of Attorney General Alberto R. Gonzales last September, and the report saves some of its harshest criticism for him. It concludes that Gonzales was “remarkably unengaged” in an unprecedented process to fire a large number of prosecutors at once, and it says that he, along with his deputy at the time, Paul J. McNulty, “abdicated their responsibility” to ensure the integrity of the process and left it mainly to Gonzales’ chief of staff, D. Kyle Sampson. The report also faulted Gonzales’ misstatements to Congress and the media about the true reasons for the dismissals and his “extraordinary lack of recollection about the entire removal process.”

In ordering a new investigation, Mukasey echoed the language of the investigators and acknowledged that the process for firing the prosecutors was “haphazard, arbitrary and unprofessional.”

president, Sen. Joe Biden of Delaware.

“I think she has pretty thoroughly — and probably irretrievably — proven that she is not up to the job of being president of the United States,” David Frum, a former speechwriter for President Bush who is now a conservative columnist, said in an interview. “If she doesn’t perform well, then people see it. And this is a moment of real high anxiety, a little bit like 9/11, when people look to Washington for comfort and leadership and want to know that people in charge know what they are doing.”

Palin, of Alaska, continues to draw large crowds, is helping McCain with fundraising and drawing volunteers, and is drumming up support among base Republican voters who were once skeptical of McCain’s candidacy, party leaders said in interviews. Yet these rough two weeks have led some Republicans to reconsider their initial assessment that she would sharply increase McCain’s appeal among women and independent voters.

Palin’s interview with Katie Couric on CBS News alarmed many Re-

publicans and gave fodder for a devastating parody on “Saturday Night Live.”

“I think the Katie Couric interview shows that she needs to be briefed more on certain aspects,” said Jim Greer, the Republican chairman in Florida. “She continues to be viewed very positively by the base of the party, but she needs to demonstrate that she’s got the knowledge and ability to be president should the need arise.”

Polling suggests that the number of Americans who think she is not fit to be president has increased since her introduction to the country last month. A number of conservative columnists and thinkers have publicly turned against her, or criticized McCain for choosing her, including George Will, David Brooks and Kathleen Parker, who wrote a column entitled “She’s Out of Her League” for the National Review Online.

Frum noted the difficulty that Dan Quayle, who was elected vice president in 1988, had in recovering from an early set of mistakes that led him to be ridiculed as an intellectual lightweight.

# Concerns About Palin’s Candidacy As She Crams for Thursday Debate

By Adam Nagourney

THE NEW YORK TIMES

A month after Gov. Sarah Palin joined Sen. John McCain’s ticket to a burst of excitement and anticipation among Republicans, she is heading into a critical debate facing challenges from conservatives about her credentials, signs that her popularity is slipping and evidence that Republicans are worried about how much help she will be for McCain in November.

Palin, the vice-presidential nominee, flew to McCain’s home in Sedona, Ariz., on Monday for three days of preparation with a team of aides, a sharp contrast to the less structured preparation that led up to the senator’s first debate.

The amount of time and staff-power being devoted to this suggested concern among McCain’s associates that Palin’s early triumphs — a well-received convention speech and subsequently attracting crowds at appearances — had been overtaken by a series of setbacks, creating higher stakes for her in the debate Thursday with the Democratic nominee for vice



# OPINION

## Letters To The Editor



**Chairman**  
Benjamin P. Gleitzman '09

**Editor in Chief**  
Nick Semenkovich '09

**Business Manager**  
Austin Chu G

**Managing Editor**  
Jessica Witchley '10

**Executive Editor**  
Michael McGraw-Herdeg G

NEWS STAFF

**News and Features Director:** Angeline Wang '09; **Editors:** Arkajit Dey '11, Jeff Guo '11, Natasha Plotkin '11; **Associate Editors:** Ryan Ko '11, Emily Prentice '11; **Staff:** Curt Fischer G, Ray C. He G, Ramya Sankar G, John A. Hawkinson '98, Daniela Cako '09, Mei-Hsin Cheng '09, Diana Jue '09, Ji Qi '09, Kirtana Raja '09, Yiwei Zhang '09, Yi Zhou '09, Nick Bushak '10, Yuri Hanada '10, JiHye Kim '10, Joyce Kwan '10, Jenny Liu '10, Manisha Padi '10, Joanne Y. Shih '10, Yan Huang '11, Elijah Jordan Turner '11, Lulu Wang '11, Jessica Lin '12, Robert McQueen '12; **Meteorologists:** Cegeon Chan G, Garrett P. Marino G, Jon Moskaitis G, Michael J. Ring G, Roberto Rondanelli G, Scott Stransky G, Brian H. Tang G, John K. Williams G, Angela Zalucha G.

PRODUCTION STAFF

**Editor:** Steve Howland '11; **Staff:** K. Nichole Treadway '10, Yue Li '11, Mark Yen '11.

OPINION STAFF

**Editor:** Andrew T. Lukmann G; **Staff:** Keith A. Yost G, Josh Levinger '07, Ali S. Wyne '08, Krishna Gupta '09, Aditya Kohli '09.

SPORTS STAFF

**Editor:** Aaron Sampson '10; **Staff:** Albert Ni '09.

ARTS STAFF

**Editor:** Praveen Rathinavelu '10; **Staff:** Bogdan Fedeles G, Andrew Lee '07, Tyson C. McNulty '08, S. Balaji Mani '10, Tina Ro '10, Kevin Wang '10.

PHOTOGRAPHY STAFF

**Editors:** David M. Templeton '08, Andrea Robles '10, William Yee '10; **Staff:** Vincent Auyeung G, Alex H. Chan G, Alice Fan G, David Da He G, Perry Hung G, Maksim Imakaev G, Dmitry Kashlev G, Arthur Petron G, David Reshef G, Martin Segado G, Noah Spies G, Scott Johnston '03, Christina Kang '08, Martha Angela Wilcox '08, Chelsea Grimm '09, Ana Malagon '09, Peter H. Rigano '09, Eric D. Schmiedl '09, Jerzy Szablowski '09, Diana Ye '09, Daniel P. Beauboeuf '10, Arka P. Dhar '10, Mindy Eng '10, Helen Hou '10, Monica Kahn '10, Samuel E. Kronick '10, Diane Rak '10, Jongu Shin '10, Dhaval Adjodah '11, Michael Y McCanna '11, Kari Williams '11, Sherry Yan '11, Rachel Fong '12.

CAMPUS LIFE STAFF

**Editor:** Charles Lin G; **Staff:** J. Graham Ruby G, David Shirokoff G, Jason Chan '09, Sarah C. Proehl '09, Michael Ciuffo '11, Michael T. Lin '11, Christine Yu '11; **Cartoonists:** Daniel Klein-Marcuschamer G, Roberto Perez-Franco G, Ben Peters '11.

BUSINESS STAFF

**Advertising Manager:** Mark Thompson '11; **Operations Manager:** Michael Kuo '10; **Staff:** Neeharika Bhartiya '10, Jennifer Chu '10, Heymian Wong '10, Connie Chan '12, Sandra Chen '12, Mengjie Ding '12, Joseph Maurer '12.

TECHNOLOGY STAFF

**Director:** Ricardo Ramirez '09; **Staff:** Quentin Smith '10.

EDITORS AT LARGE

**Contributing Editors:** Rosa Cao G, Brian Hemond G, Valery K. Brobbey '08, Caroline Huang '10; **Senior Editors:** Satwiksai Seshasai G, Shreyes Seshasai G, Jillian A. Berry '08, Omari Stephens '08, Sarah Dupuis '10.

ADVISORY BOARD

Paul E. Schindler, Jr. '74, V. Michael Bove '83, Barry S. Surman '84, Robert E. Malchman '85, Deborah A. Levinson '91, Jonathan E. D. Richmond PhD '91, Karen Kaplan '93, Saul Blumenthal '98, Frank Dabek '00, Daniel Ryan Bersak '02, Eric J. Cholaneril '02, Jordan Rubin '02, Nathan Collins SM '03, Keith J. Winstein '03, Akshay R. Patil '04, Tiffany Dohzen '06, Beckett W. Sterner '06, Marissa Vogt '06, Zachary Ozer '07, B. D. Colen.

PRODUCTION STAFF FOR THIS ISSUE

**Editors:** Austin Chu G, Jessica Witchley '10.

*The Tech* (ISSN 0148-9607) is published on Tuesdays and Fridays during the academic year (except during MIT vacations), Wednesdays during January, and monthly during the summer by The Tech, Room W20-483, 84 Massachusetts Avenue, Cambridge, Mass. 02139. Subscriptions are \$45.00 per year (third class) and \$105.00 (first class). **POSTMASTER:** Please send all address changes to our mailing address: The Tech, P.O. Box 397029, Cambridge, Mass. 02139-7029. **TELEPHONE:** Editorial: (617) 253-1541. Business: (617) 258-8324. Facsimile: (617) 258-8226. *Advertising, subscription, and typesetting rates available.* Entire contents © 2008 *The Tech*. Printed on recycled paper by Charles River Publishing.

### Clicker Ripoff

I couldn't agree more with Ethan Solomon's article "Textbook Procurement Issues" in the Sept. 19 issue of *The Tech* — particularly the point about silly extra clicker devices that the students have to purchase.

Students don't have any use for them beyond college (that's part of theory for why we have to buy our own textbooks), but you don't see a "technology surcharge" on our tuition bill for use of Scantron grading or the projectors in each classroom.

The main reasons students have to buy clickers is 1) to set up some accountability for their care, and 2) as an incentive from the clicker manufacturers for a university to adopt their system. "Hey, the receiver and software is free for you — if you make the students pay for clickers in the bookstore."

This seemed so backwards to me that I took a leave from MIT after my first year at Sloan to create a clicker competitor — Poll Everywhere — that works over student cell phones via SMS, smartphone web browsers, or laptops. My goal is to make it ten times less expensive per student than clickers, at which point the universities will have no good excuse for making students pay for clickers. Who needs another device for such simple functionality?

Jeff Vyduna

### On Election 2008: No Bitchassness

I just mailed my registration to vote today, and I have some issues that I wanted to get off

my chest before getting back to problem sets.

Initially, I wasn't going to vote. I was frustrated with the system. By default, our politics and government favor corporations and Israel because they have a big, manipulating hand in the economy. That leaves a widening gap between the rich and poor, a continuing energy crisis, a mass media broadcasting an unbalanced view of the world, and the Middle East always in conflict.

Who knows if democracy is the best form of government? For now, in about 40 days, someone will be elected president, and I want that person to be Barack Obama.

With that said, I have problems with both candidates. McCain wants to continue the war that has killed around 4,000 US troops and 1,000,000 Iraqis since March 2003.

In the words of McCain, "I do not want to keep our troops in Iraq a minute longer than necessary to secure our interests there. Our goal is an Iraq that can stand on its own as a democratic ally and a responsible force for peace in its neighborhood." In other words, let's keep killing innocent civilians until we have someone in power that will do whatever the US wants and give us whatever we want (oil) because the US has the right to control Iraq and whoever. If McCain and Bush really want to feel the pain that war causes, they should send their own children to fight the war.

And for all the I-don't-want-my-taxes-raised republicans, what is the point of tax breaks if the economy is now in the worse deficit in history?

The first thing Obama did once he was nominated was to make a clear statement of his unwavering support for Israel in his speech to the American Israel Public Affairs Committee (AIPAC). This is the same Israel that has stripped Palestinians of their homes, violated human

rights by creating a 26-foot high apartheid wall in the West Bank (a.k.a. the new Berlin Wall), and commanded a siege in Gaza leaving 1.5 million Palestinian inhabitants without imports, exports, or electricity.

As a leader of change, Obama should be boycotting or planning to employ sanctions on Israel for its terrorism of the Palestinian people. Another concern is the campaign money Obama is receiving from corporations. He will later have to blindly support corporations at the expense of making choices more favorable to working class people who need his support.

So, I realized, like every president, he has to play the game. Nonetheless, unlike McCain and Hillary, Barack voted against the war from the outset. Obama voted against the war at a time when you were unpatriotic to be against the war — right after 9/11. He is a man of some principle.

And for those who feel "who gives a fuck who is president anyway? Presidents come and go, and, to be honest, I always feel like nothing really affects me directly," think about other people before yourself. If you were worse off, you wouldn't like it. Is it about we or I?

My big question is this: Bush's decision to invade Iraq has caused hundreds of thousands of deaths yet every reason for the invasion given publicly has turned out to not to be true. Why did Bush really invade Iraq?

Just to be clear, I love the U.S., and I'm very happy with the life I live here thanks to family and friends. I just want the U.S. to use its influence to better other countries so that more people can live happier. All I'm saying is give peace a chance.

Cecily Lopes '11

## This Isn't a Bailout — It's a Stickup

### Sounding Off On the Administration's Plan

Matthew Davidson

As of Sunday it appears that Congress will pass a Wall Street bailout bill with expenditures potentially totaling more than \$700 billion. After a week of fear tactics put forth by the executive branch and the Federal Reserve, the Congress has apparently caved.

According to Treasury Secretary Henry Paulson, the billions will be spent to shore up credit markets by buying "illiquid" assets that are weighing on the balance sheets of foreign and domestic banks.

This is just the latest in a series of bailouts performed by the Federal Reserve and the treasury in which billions of taxpayer dollars have been put at risk. Since March, the Federal Reserve has loaned out more than \$100 billion to rescue failed financial institutions.

Recently the Fed became worried that its own balance sheet was being depleted and the U.S. treasury came to the rescue, effectively bailing out the federal reserve by auctioning debt on behalf of the Fed. Add to this \$200 billion for Fannie Mae and Freddie Mac, and the total new liabilities for the U.S. taxpayer are more than \$1 trillion.

This robbery of the American people has been performed under the guise of preventing a recession, although more frightful language is often used by supporters of the bailouts. The fear generated by the actions and words of Federal Reserve have scared Congress into adding more fuel to the fire of the recession which will inevitably occur as a result of our the failed monetary policy pursued by the Fed itself.

Understanding the Fed and its language — termed "fedspeak" — is often difficult, perhaps purposely so. It is important to first understand

that the Federal Reserve System is made up of Federal Reserve Banks, which are private banks whose shareholders include such Wall Street titans as JP Morgan Chase, Goldman Sachs, and Citibank.

From its inception in 1913, the Federal Reserve has crafted monetary policy which has resulted in alternating periods of inflation and deflation of the money supply. The most recent inflation of U.S. housing prices is just another example of the effect of Fed policy.

In 2001, the Fed lowered its benchmark interest rate from a high of 6.5 percent to below 2 percent and maintained this level for more than two years. This change in the mandated interest rates for interbank loans resulted in an oversupply of "cheap" money which resulted in malinvestment. This malinvestment took the form of overdevelopment of commercial and residential real estate, sub-prime mortgages, and many other forms of irresponsible lending.

As a result, millions of Americans were lured into accepting adjustable rate mortgages to pay unaffordable prices for overvalued houses. When the Fed raised interest rates, housing loans became less affordable and the prices of housing fell along the demand for these loans.

While some prospered from the booming real estate prices, the overwhelming effect of the Fed's monetary policy was to inflate a housing bubble that drove millions of Americans further into debt while investment banks posted billions of dollars in profits from creating and trading debt instruments backed by these loans.

These same debt instruments have now become "illiquid" after the realization that the housing bubble had burst, and the underlying collateral backing these debt instruments had lost value. These assets are said to be illiquid because banks are not willing to sell them for the

prices currently being offered by the market.

Now thanks to the lobbying efforts by the Chairman of the Federal Reserve, which is owned by Wall Street banks, and Henry Paulson, a former banker at Goldman Sachs, the American people are now completing the cycle, moving further into debt, while the bankers benefit.

On top of this, all the cheap money flowing through the system has caused our dollar to steadily lose value against world currencies. This has driven up the price of oil, food, and all essentials of life. As a result of dollar devaluation, all the stock market averages, which are valued in dollars, have been falling for years. Valued in 2001 dollars, our Dow Jones Industrial Average would be well below the 8000 level. Yet we continue to tell ourselves that we are not in a recession.

Adding to our national debt will only further this inflation problem. We must realize that we are already in a recession and not be swayed by fear-mongering from Wall Street. Instead we must clean house and remove these bankers from the halls of our government.

Congress has failed us for now, but the people still have the power. We can change this system any time. We only have to declare our independence from the banking system. We can all vote with our dollars buy removing them from the banks and converting them to gold, silver, or other currencies which are out of reach of devaluation by the Fed.

If you're as outraged as me about this situation, let's get together on the steps outside Lobby 7 this Friday at 5 p.m. to show the bankers at the Fed that MIT students have declared our independence!

*Matthew Davidson is a graduate student in the Departments of Physics and Nuclear Engineering.*

### Opinion Policy

**Editorials** are the official opinion of *The Tech*. They are written by the editorial board, which consists of Chairman Benjamin P. Gleitzman, Editor in Chief Nick Semenkovich, Managing Editor Jessica Witchley, Opinion Editor Andrew T. Lukmann, and Contributing Editor Rosa Cao.

**Dissents** are the opinions of signed members of the editorial board choosing to publish their disagreement with the editorial.

**Letters to the editor, columns, and editorial cartoons** are written by individuals and represent the opinion of the author, not necessarily that of the newspaper. Electronic submissions are encouraged and should be sent to [letters@the-tech.mit.edu](mailto:letters@the-tech.mit.edu). Hard copy submissions should be addressed to The Tech, P.O. Box 397029, Cambridge, Mass. 02139-7029, or sent by interdepartmental mail to Room W20-483. All submissions are due by 4:30 p.m. two days before the date of publication.

Letters, columns, and cartoons must bear the authors' signatures, addresses, and phone numbers. Unsigned letters will not be accepted. *The Tech* reserves the right to edit or condense letters; shorter letters will be given higher priority. Once submitted, all letters become

property of *The Tech*, and will not be returned. Letters, columns, and cartoons may also be posted on *The Tech's* Web site and/or printed or published in any other format or medium now known or later that becomes known. *The Tech* makes no commitment to publish all the letters received.

**Guest columns** are opinion articles submitted by members of the MIT or local community and have the author's name in italics. Columns without italics are written by *Tech* staff.

### To Reach Us

*The Tech's* telephone number is (617) 253-1541. E-mail is the easiest way to reach any member of our staff. If you are unsure whom to contact, send mail to [general@the-tech.mit.edu](mailto:general@the-tech.mit.edu), and it will be directed to the appropriate person. You can reach the editor in chief by e-mailing [eic@the-tech.mit.edu](mailto:eic@the-tech.mit.edu). Please send press releases, requests for coverage, and information about errors that call for correction to [news@the-tech.mit.edu](mailto:news@the-tech.mit.edu). Letters to the editor should be sent to [letters@the-tech.mit.edu](mailto:letters@the-tech.mit.edu). The Tech can be found on the World Wide Web at <http://www-tech.mit.edu>.



# Preventing Binge Drinking

## Why the Amethyst Initiative Could Be the Solution

Jennifer Nelson

MIT has a lot of alcohol emergencies — or maybe not, if you compare it to some other schools. But the reason these details make me cringe is because I can guarantee that every one of these emergencies was pretty awful for those involved.

It is definitely not fun to have thrown up so much that you're choking, or to be falling over so often that you have to be carried away. And it is definitely not fun to have to be the friend who calls, and then tries to hide that it was you when your friend storms out of the hospital the next morning. Trust me, I've been there.

So, for the sake of us students, I will completely throw my support behind anything that reduces binge drinking, anything that reduces that number of hospital visits by students that are due to alcohol. Who has time for a hospital visit when your 8.03 pset is due the next day?!

So is the Amethyst Initiative, which is a movement by U.S. college presidents, deans, and chancellors to lower the drinking age, really the answer? Will lowering the drinking age to, say, 18 actually reduce binge drink-

ing?

Let's approach this logically. There are three options for the age distribution of college binge drinking. The first is that most binge drinkers are 21 and up, because they have much easier access to large amounts of alcohol. I'm going to say this is unlikely, because the CDC reports that the proportion of drinkers that binge drink is currently the highest, at 51 percent, in the 18-20 year old age group.

So the second option is that binge drinking is about the same across all college age groups, and being of legal age does not dramatically affect binge drinking patterns. If this were true, then logically, the Amethyst Initiative would not have much of an effect in either direction. The behavior of college binge drinkers would not change if they suddenly became legal at a younger age.

The final option is that underage drinkers are much more likely to binge drink than

*It is also likely that the nation will see fewer hospital visits overall due to teenage binge drinking, because when teens binge drink, parents find out.*

to drink responsibly. This could be the case, because underage drinkers probably have had less exposure to alcohol than 21 year-olds who have been in college for a few years. Also, underage drinkers are probably less likely to know how many drinks they can or should have if they don't want to end up in an ambulance.

So if this final option is true, the Amethyst Initiative is what we're looking for. By lowering the drinking age, students would get more exposure to alcohol in high school, similar to Europeans and Canadians. In addition, this high school exposure is more likely to be supervised under the watchful eyes of parents, and so kids are more likely to learn — before they end up in the hospital — how much they can take.

I've spoken to a few students who said their parents made them drink before college, just so their first experience with alcohol would be with them. I don't think that's a bad idea at all.

It is most likely that underage drinkers are responsible for most of the binge drinking, given the CDC's statistics, and given how binge drinking in college, where about half of the undergraduate students are underage, is always emphasized. So if we lower the drinking age, which will increase students' exposure to alcohol before they leave for college, it's quite likely that MIT students will have to visit the hospital less often due to alcohol.

It is also likely that the nation will see fewer hospital visits overall due to teenage binge drinking, because when teens binge drink, parents find out. Teens can't hide much information from their guardians until they're 18. And if you get caught slopping all over yourself once by your parents, you will probably think twice before doing it again.

If the Amethyst Initiative successfully lowers the drinking age, it's possible that alcohol won't be as essential a part of the college experience. It just won't be quite as exciting anymore, because it won't be illegal. So I guess we'll just have to find something else illegal to do ...

Now there's a scary thought.

Jennifer Nelson '09 is a student in the Department of Biology.

# An Insider's Take on the Amethyst Initiative

## Combating Binge Drinking on Campus

Daniel Trujillo

Over the previous two years, retired Middlebury College President, John McCardell, has spent considerable time and effort to engage American colleges in a serious dialogue regarding the dangerous effects of high-risk alcohol use on campus. While the use of alcohol on campus is nothing new, the increased incidence of excessive alcohol use and its associated negative effects are considered significant problems within institutions of higher education.

McCardell correctly identifies the "culture of dangerous binge drinking" as the core issue associated with alcohol on campus. While MIT is not one of the 129 current signatories in support of a statement issued by the Amethyst Initiative, many in our community (I include myself in this number) would agree that excessive alcohol use on campus is a fundamental problem.

In this article, I will not offer a view on the behalf of MIT regarding the Amethyst Initiative or attempt to capture the complexity of the issues involved with high-risk drinking on college campuses. I will, however, offer my professional opinion on the Amethyst Initiative and the potential efficacy of lowering the minimum drinking age.

I welcome this opportunity to contribute to a dialogue that calls for serious attention to the issues and consideration of meaningful, research derived solutions.

The Presidential Statement signed by university presidents as part of the Amethyst Initiative commits signatories to do the following:

- \* Support an informed and dispassionate public debate over the effects of the 21-year old drinking age.
- \* Consider whether the 10 percent highway fund "Incentive" encourages or inhibits that debate.
- \* Invite new ideas about the best ways to prepare young adults to make responsible decisions about alcohol.
- \* Pledge their institutions to playing a vigorous, constructive role as these critical discussions unfold.

Simply stated, the presidents signed the Amethyst Initiative in support of a public debate around a variety of issues that influence a college's ability to effectively address alcohol use. As part of this process, the presidents also committed to support a discussion of the effects of the minimum drinking age, not to support lowering it, as McCardell has stated.

It would be a mistake to assume the support of rigorous public debate about current laws and policies regarding the 21+ drinking age is a tacit endorsement to abolish or change them. Unfortunately, this statement's call for a broader dialogue and examination of the issues and options has become portrayed as an endorsement of both the recommendations advocated by Choose Responsibility (Dr. McCardell's organization) and for lowering the minimum drinking age.

*It is unfortunate that the call for dialogue and debate has become solely a call to lower the minimum drinking age.*

With all the press coverage since August of this year, I have yet to see a report note the actual objectives these presidents endorsed: to support a civil and thoughtful dialogue regarding alcohol use, public policy, and the campus environment.

On the contrary, McCardell himself is complicit in promoting the misperceptions of the Amethyst Initiative. In news reports and interviews, Dr. McCardell has either stated directly or implied that endorsement of the Presidential Statement is an endorsement to lower the minimum drinking age.

Predictably, the media has grasped onto the idea that college presidents would support lowering the minimum drinking age as an AP wire story published in the Chicago Tribune demonstrates: "College presidents from about 100 of the nation's best-known universities, including Duke, Dartmouth and Ohio State, are calling on lawmakers to consider lowering the drinking age from 21 to 18, saying current laws actually encourage dangerous binge drinking on campus."

In reality, one of the first lines in the Presidential Statement is, "The Presidential Statement does not advocate a specific drinking age."

It is unfortunate that the call for dialogue and debate has become solely a call to lower the minimum drinking age. I believe most college presidents would support the true purpose of the Presidential Statement and the Amethyst Initiative.

The concerns underlying Dr. McCardell's efforts to address alcohol abuse on campus are shared by all of us in higher education. Institutions of learning should support a thoughtful dialogue about how the campus environment and current laws and policies affect our ability to address alcohol use on campus.

In my opinion, supporting lowering the minimum drinking age at this moment would be (1) inconsistent with the request Dr. McCardell's statement is asking of the presidents (to commit to a process to develop a view point on this issue) and (2) inconsistent with most of the peer-reviewed evidence to date regarding the social and individual impact of lowering the drinking age.

In addition, research and public policy panels convened to examine underage alcohol use have consistently found the minimum drinking age has led to a decrease in alcohol-related fatalities among 18–21 year-olds.

However, despite this evidence, organizations like McCardell's Choose Responsibility, as well as many individuals continue to embrace the idea that lowering the minimum drinking is a panacea to solve alcohol issues on America's college campuses. These organizations and individuals often cite laws in other countries, particularly those of Western Europe (especially France), as a model for lower drinking ages that appear to work. Unfortunately, this popular concept does not accurately portray the common problems of youth excessive drinking shared around the world.

In fact, researchers and government public health officials in France, Spain, England, and Germany have expressed concern over high-risk drinking among their youth to mobilize changes in public health practices and policy. Etienne Apaire, head of a French government committee aimed at addressing alcohol and other drug addiction, has characterized this trend of increased high-risk drinking among youth as evidence of a "globalized" behavioral trend evident in all 27 European Union member countries.

A 2005 French government study reported that while alcohol use rates among the general population have been falling, half of all French teenagers report having been drunk at least once in the previous month. In addition, comparing the 30-day prevalence rates for heavy drinking from the 2003 European School Survey Project on alcohol and other drugs to those of American 10th graders reveals that American youth drank less than all of their peers (except for Turkey) across the pond.

According to the U.S. Monitoring the Future survey, 22 percent of American 10th graders report high-risk drinking compared to the European Survey's findings for the Netherlands (58 percent), UK (54), Belgium (50), Greece (39), Italy (34), France (28), Portugal (25), and Turkey (15).

To focus the debate solely on lowering the drinking age to 18 negates not only the stated purpose of the Amethyst Initiative but also oversimplifies the psychosocial, biological and environmental issues contributing to alcohol abuse among young adults. Evidence gleaned from colleges across the country, including MIT, indicates that resolving this issue requires employment of a variety of individual, environmental, and campus-community approaches, not a single policy solution.

Over the previous seven years, MIT students, faculty, alumni, and staff have worked with my office, the Community Development

*We use evidence-based practices to assess problems, develop innovative solutions, and implement programs that reach across the MIT community.*

and Substance Abuse Center for Policy, Prevention, and Research, to create an innovative and comprehensive approach to address alcohol use in our community. We use evidence-based practices to assess problems, develop innovative solutions, and implement programs that reach across the MIT community.

Students, faculty, and staff at MIT have also worked in partnership with government officials, neighboring colleges, and local bars and restaurants in Boston and Cambridge to form coalitions that address shared concerns around the negative consequences of high-risk alcohol consumption. We will continue to employ a comprehensive approach in addressing high-risk drinking at MIT.

It is important to note the two key aspects differentiating MIT's approach to this issue from those of most other colleges and universities in the United States: (1) student leadership and involvement and (2) the use of data and evaluation to identify areas of focus and evaluate strategy outcomes.

MIT students have developed our educational programs and co-authored our alcohol and other drug related regulations. For example, this past year students provided critical input regarding MIT's alcohol policy revision and wrote MIT's Good Samaritan policies.

MIT is recognized as a leader in addressing alcohol and other drug issues in higher education and has received national recognition as a model program for the prevention of alcohol and other drug issues by the U.S. Department of Education. We are committed to employing innovative, problem solving strategies to maintain and expand our comprehensive approach in addressing high-risk drinking at MIT.

The CDSA looks forward to engaging in a thoughtful debate with the MIT community as these issues continue to unfold.

Daniel Trujillo is the Associate Dean for Community Development and Substance Abuse Programs.



# The State of the Institute Hacker

## How The Administration Has Disrespected This Campus Institution

Vinayak Ranade

With President Hockfield's 'State of the Institute' just passed, I felt that it would be appropriate to address the state of the Institute hacker, who is after all, a member of MIT belonging to myriad macro and micro communities.

As the president of East Campus, I often have to deal with the popular misconception at MIT equating hacking with the dorm. While hackers are not exclusive to EC, some hackers do reside within the dorm, and it is my duty to represent them as best I can.

The Institute hacker, like you and me, is just another hosed MIT student. He wants to graduate on time, needs to pull an all-nighter for that extra-long p-set, and is worried that airfares are going up and that he might not be able to make it home for Christmas. Sometimes he thinks about just partying the entire weekend. Tonight, however, he wants to do something more exciting, something that makes him feel alive — something he can only do at a place like MIT.

He starts off his night by grabbing a couple of like-minded people; he knows that one should never hack alone. The group sets off for a grand night, thrilled with the prospect of being the next generation of "those brilliant MIT hackers" that mystify everyone.

Soon enough, the Institute hacker finds himself at a door which he is not supposed to get through. He's really curious to know what's on the other side. For the Institute hacker this is not something new, and a few minutes later he is on the other side of the door.

It turns out to be just a janitor's closet, and the Institute hacker knocks over a pail of dirty water walking in. Remembering the code of ethics he was taught his freshman year, he quickly cleans up the mess, and leaves the

place just as he found it, perhaps even better.

He takes extra care to make sure that the door is locked on his way out, because he doesn't want some bum who's wandering MIT's open campus to come and spend the night in or steal anything from the unlocked janitor's closet that he found. The last thing he wants is for hackers to be blamed for someone else's mistakes.

The night eventually leads the Institute hacker to a roof. He really enjoys the cool breeze and the Boston skyline as it stares back at him. He feels fortunate and proud to be one of the few people who can get to this particular roof. Suddenly, he hears the roof door click.

His first instinct is to remain as calm as possible. Safety safety safety, he remembers an upperclassman drilling into him during his freshman year. Within moments, there is a gruff looking Campus Police officer shining his light on the Institute hacker, rumbling "Hey you. Come over here."

The Institute hacker knows that he's been caught. Not so long ago, he would have immediately obeyed and walked over to the officer on duty, and cooperated fully. But tonight, he isn't so sure. He's read the letter from the Chancellor earlier in the night. He's heard of his friends being treated like common criminals.

He's read about the police brutality accusations in *The Tech*. He doesn't trust the officer to know what the hacking code of ethics is, and he is terrified at the prospect of being thrown to the Cambridge Police by some MIT authority who doesn't really understand hacking. He remembers hearing about a friend's belongings getting confiscated for weeks by the Campus Police. He remembers a friend who had to face lengthy criminal court proceedings and defaming articles in newspapers.

The Institute hacker's mind is filled with doubts. Maybe he should have just agreed to go and get drunk with his other buddies instead of trying to carry on some MIT "tradition." Was it even a tradition anymore, or just a game of cat and mouse? He wonders.

There is a lack of appreciation for the amount of effort that hackers put into pulling off ridiculous feats. Tours led by hackers convince many prefrish to choose MIT, because they know that this experience wouldn't be possible at Harvard or Yale. I didn't hear a single administrator complain when hackers committed grand theft for the Caltech cannon hack, but they all changed their tune the moment students got caught on MIT's own campus.

I walk into the Stata Center for classes and see the exhibits commemorating old hacks, but the hackers that I know don't feel commemorated. They feel like MIT is on track to becoming like any other university. They are tired of the administrators changing their stance on hacking all the time, depending on external pressures and internal politics.

They never know what to expect if a Campus Police officer stops them, even if they're just walking down the Infinite. They don't feel like staying calm and stepping up to the officer on duty. They want to deal with neither the policies nor the changing whims of police officers and administrators. They just want to explore interesting places, understand exactly how that machine room works, and pull off some spectacular engineering.

If they want to make a statement, they usually do it in style. But these days, the state of the Institute hacker is such that he is afraid of making a statement; he doesn't know whether getting caught means community service, going to the Committee on Discipline, going to trial in a Cambridge court, or having to explain his actions to prospective grad schools.

Every student has a message in their inbox today telling them that, "Those who violate the tradition, by endangering themselves or others, by breaking the law, or departing from the 'hacking code of conduct' cannot seek protection from responsibility." This sounds like the administration wants hackers to keep doing all the things which help MIT's image, but if hackers get caught doing these things, they'll be mercilessly prosecuted.

Why does MIT put on display all the hacking memorabilia when they would prosecute anyone in the act of putting together those very hacks? Since when do administrators know more about the hacking code of ethics than the hackers who wrote it? Since when does hacking get thrown into the same category as academic integrity and hazing? How can a hacker follow the hacking code of conduct without hacking?

The Institute hacker on the roof is still debating whether to step up to the officer on duty. The state of the Institute hacker is confused, nervous, and insulted.

Vinayak Ranade '09 is the President of East Campus.

*I didn't hear a single administrator complain when hackers committed grand theft for the Caltech cannon hack, but they all changed their tune the moment students got caught on MIT's own campus.*

# MIT Voter Registration Drive

## Register to vote in time for the November elections!

Vote absentee  
in your home state!

Student Center  
1st Floor Booth  
Oct. 1–3 (Wed–Fri)  
9 a.m. – 5 p.m.

Sponsored by:





September  
30, 2008

# COMICS

The  
Tech

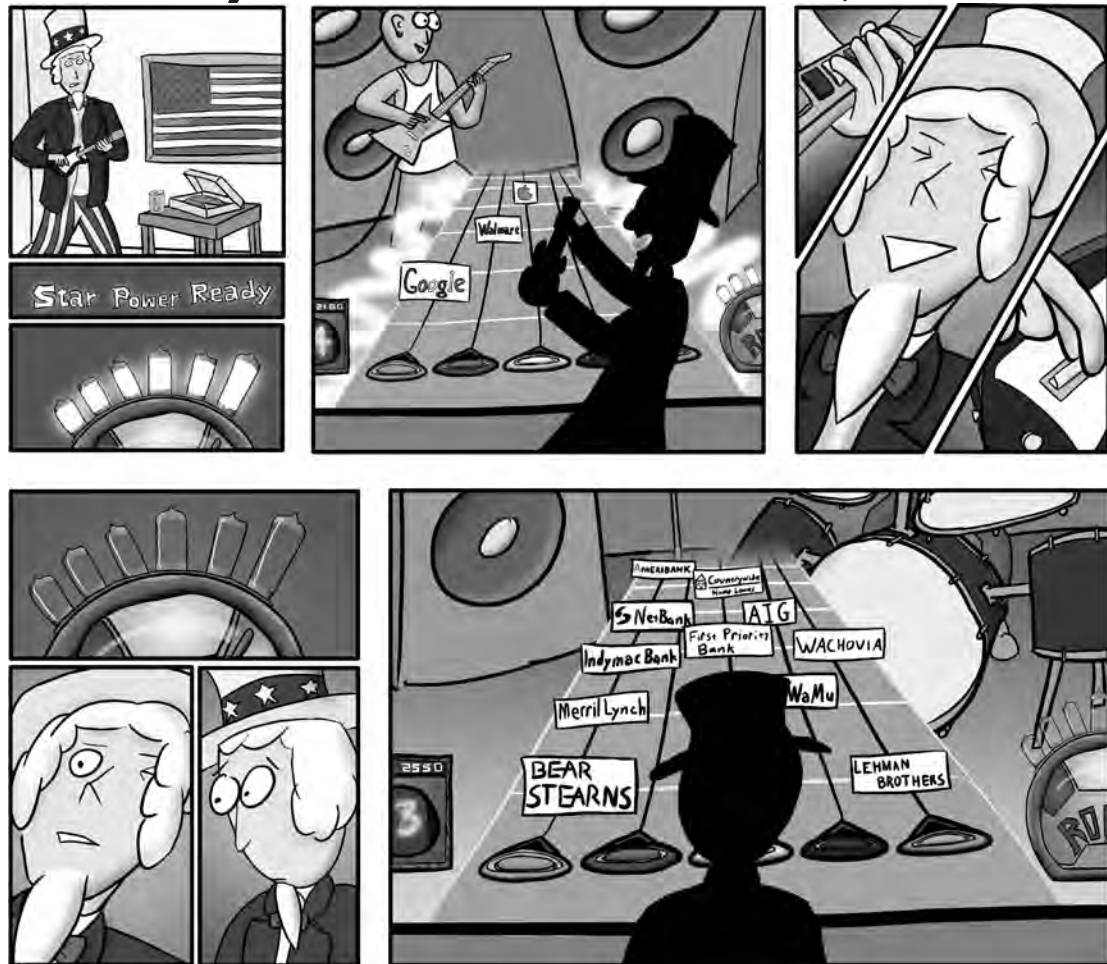
## FUN

Page  
7

## PAGES

### Steal My Comic

by Michael Ciuffo



### su | do | ku

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.  
Solution on page 15.

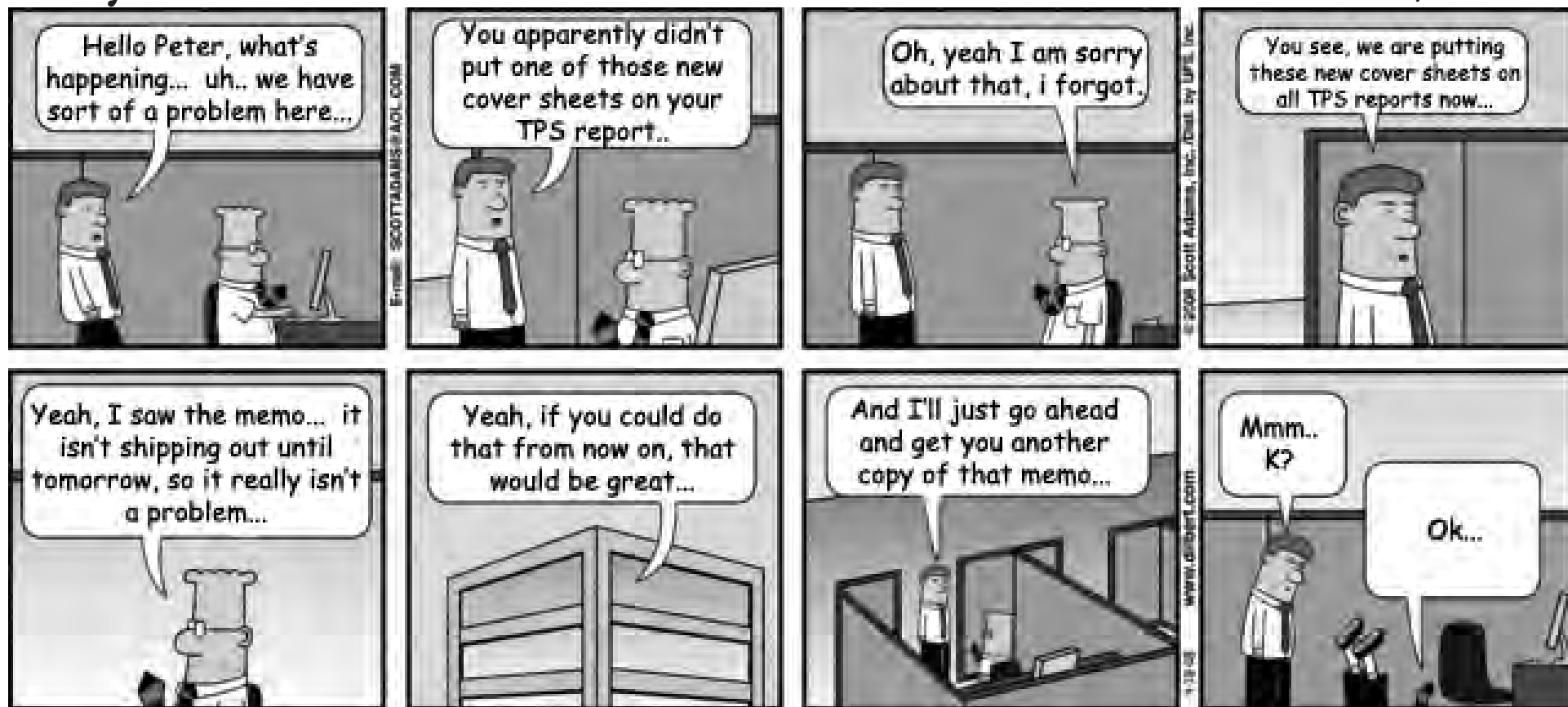
© Puzzles by Pappocom

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
|   |   |   |   |   |   | 9 |   |   |
|   |   |   | 6 |   |   | 4 | 2 |   |
|   |   | 8 | 9 | 5 |   |   | 1 |   |
|   | 7 |   | 4 |   |   | 3 |   | 2 |
| 8 |   |   |   |   |   |   |   | 4 |
| 2 |   | 9 |   |   | 1 |   | 7 |   |
|   | 2 |   |   | 8 | 3 | 5 |   |   |
|   | 5 | 4 |   |   | 9 |   |   |   |
|   |   | 3 |   |   |   |   |   |   |

Solution, tips, and computer program at <http://www.sudoku.com>

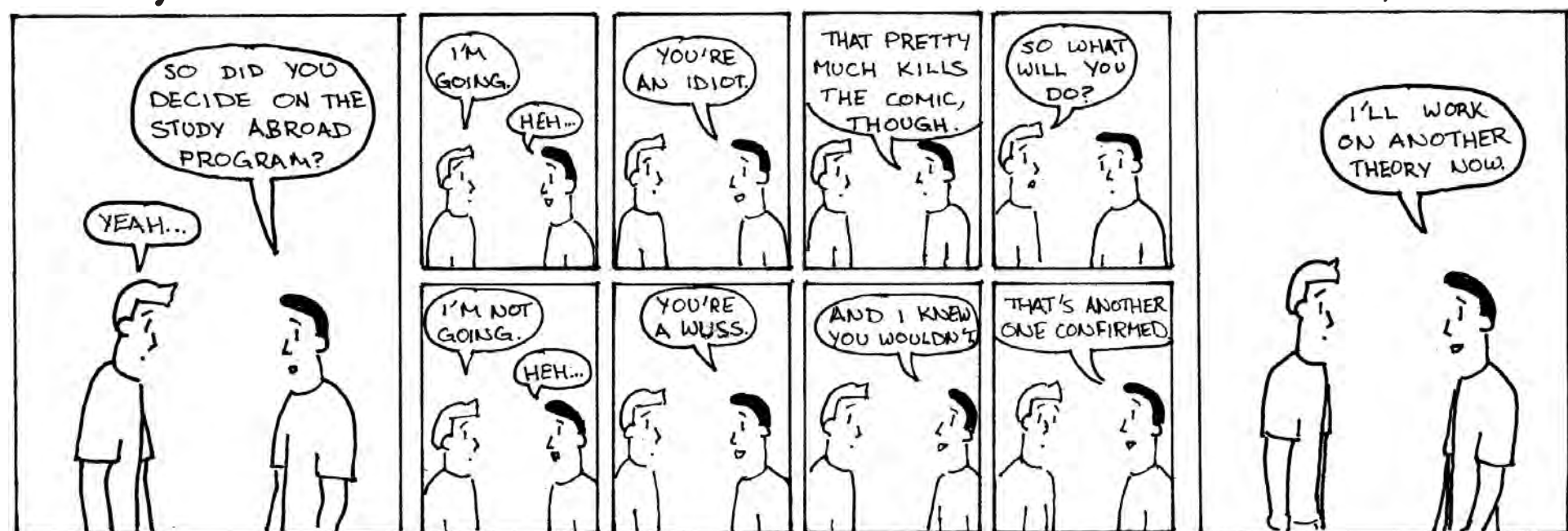
### Daily Blunderbuss

by Ben Peters



### Theory of Pete

by Cai GoGwilt



Doonesbury  
BY GARRY TRUDEAU

Dilbert® by Scott Adams

Crossword Puzzle

Solution, page 15

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  |    | 5  | 6  | 7  | 8  |    | 9  | 10 | 11 | 12 | 13 |
| 14 |    |    |    |    | 15 |    |    |    |    | 16 |    |    |    |    |
| 17 |    |    |    | 18 |    |    |    |    |    | 19 |    |    |    |    |
| 20 |    |    |    |    |    |    |    |    |    | 21 |    |    |    |    |
|    |    |    |    | 22 |    |    |    |    | 23 |    |    |    |    |    |
| 24 | 25 | 26 | 27 |    |    |    | 28 | 29 |    |    |    | 30 | 31 | 32 |
| 33 |    |    |    |    |    | 34 |    |    |    |    |    | 35 |    |    |
| 36 |    |    |    |    |    | 37 |    |    |    | 38 | 39 |    |    |    |
| 40 |    |    |    |    | 41 |    |    |    | 42 |    |    |    |    |    |
| 43 |    |    | 44 | 45 |    |    |    |    | 46 |    |    |    |    |    |
|    |    |    | 47 |    |    |    |    | 48 |    |    |    |    |    |    |
|    | 49 | 50 |    |    |    |    | 51 | 52 |    |    |    | 53 | 54 | 55 |
| 57 |    |    |    |    |    |    | 58 |    |    |    |    |    |    |    |
| 59 |    |    |    |    |    |    | 60 |    |    |    |    | 61 |    |    |
| 62 |    |    |    |    |    |    | 63 |    |    |    |    | 64 |    |    |

ACROSS

- 1 Cook’s accent?  
5 Clean coal  
9 2005 Best Picture  
14 Nefarious  
15 Foster  
16 Lean and limber  
17 Offensive  
19 Beaming  
20 Start of a fortune cookie quip  
22 FedEx rival  
23 Well-suited  
24 Backs of boats  
28 Cutting tools  
33 Part 2 of quip  
35 Was left idle  
36 Disconcert  
37 Take steps  
38 This compared to that  
40 Fulfilled  
41 Part 3 of quip  
43 Twisted treats  
46 Gratify  
47 Well-gotten gain?  
48 AAA suggestion  
49 End of quip  
57 Unduly exacting  
58 Antitheses

DOWN

- 59 Slack off  
60 Bit controller  
61 Sight from Messina  
62 Nymph chaser  
63 Beatty and Rorem  
64 Entry  
1 Villain’s bane  
2 Fifty-fifty  
3 Fully matured  
4 Was not colorfast  
5 West Indies music  
6 Complies  
7 Vegas action  
8 Caesar’s question to Brutus  
9 Fasteners  
10 Legal claims  
11 Legendary Hun king  
12 Buy things  
13 Cut down  
18 NASA event  
21 Drops on the windshield  
24 Mangrove habitat  
25 Rome’s river  
26 Gladden  
27 “Treasure Island” monogram

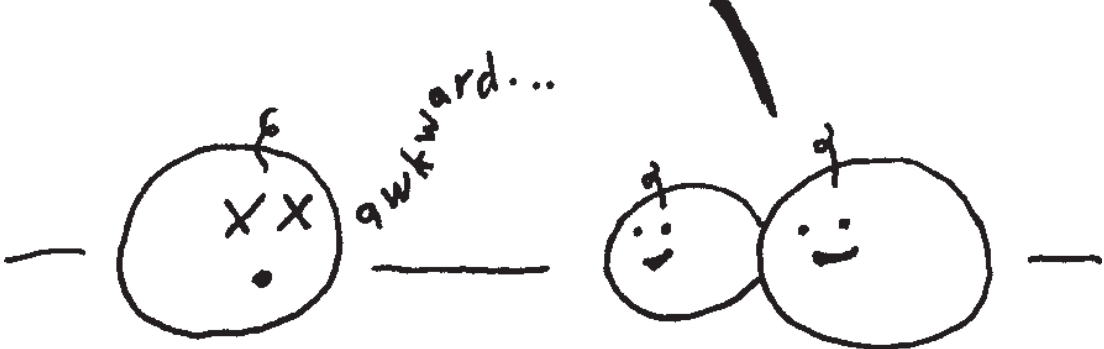
- 28 Offshoot groups  
29 Jackson or Cleveland  
30 Port of ancient Rome  
31 Fence parts  
32 Swiped  
34 Handle roughly  
38 Measuring devices  
39 Veneration  
41 Encircling route  
42 Alternatives  
44 Pleasantly warm  
45 “The Third Man” instrument  
48 Fleet  
49 Rum cake  
50 Part of QED  
51 Little Boy Blue tote  
52 Parrying piece  
53 Varicolored  
54 Director Preminger  
55 City on the Truckee  
56 Former Russian emperor  
57 Contains

Blobbles

by Jason Chan

Whoa. Hold on, Are you guys talking about sharks?

You must have heard us wrong... We're popping out farts!



“New to Blobbles? Here’s how it works. Send me a caption or title at [blobbles@tech.mit.edu](mailto:blobbles@tech.mit.edu), and I’ll draw a picture to go along with it!”

Eating Disorder Treatment  
Treatment of Adults Suffering from  
Anorexia and Bulimia Nervosa



Informed clinicians refer their clients to Laurel Hill Inn. LHI provides the most effective treatment and deploys the highest staff-to-client ratio in New England. We provide extensive programming in a highly structured and supervised non-institutional therapeutic setting. Evening, day, and residential treatment as well as weekly support groups in West Medford and West Somerville. Call Linda at 781 396-1116 or visit [www.laurelhillinn.com](http://www.laurelhillinn.com).

Royal Bengal

Boston’s only authentic Bengali Cuisine restaurant

313 Mass. Ave., Cambridge

(617) 491-1988

T: Red Line, Bus #1 – Central Square

Open Daily Except Monday  
11:30 am – 11:30 pm  
Lunch Buffet \$7.95  
Reasonably Priced Dinners

10% Discount on \$15  
(or more) order with MIT ID.

Free delivery for orders over \$10.  
Take-out, platters, and catering available.  
<http://www.royalbengalrestaurant.com/>



# CAMPUS LIFE

## Talk Nerdy To Me

### Curiosity Killed the Cat?

By Christine Yu  
*STAFF COLUMNIST*

Sex is full of trial and error. No one will ever claim that the best sex they ever had was when they lost their virginity, well, unless that was the only sex they ever had. Each person is different, and it usually takes a lot of experimentation to figure out just what works. However, do we reach a point where we get too comfortable and cease to experiment?

I'm referring specifically to the notion of types — even more specifically genders. Lately, one of the top songs on iTunes is Katy Perry's "I Kissed a Girl," except she's publicly stated she's never even kissed a girl. How can you write about it if you've never done it? See, I've avoided the topic of experimentation for this reason — I've never tried the same gender.

However, I don't identify as purely heterosexual — I don't think anyone really does. We've all found members of the same gender attractive, it's just were told not to act on this attraction. The number one Facebook prank

is to change someone's "Interested In" to the same gender. Except, is it really that funny? Honestly, it's just like the come back, "you're so gay." I thought that line was done after middle school.

Our society finds it sexy when a girl fools around with another girl, so long as she doesn't identify as purely a lesbian. Yet, if a guy fools around with another guy, he's considered gay, which is not considered "attractive." Maybe this can be justified by Darwinian principles that men just want to spread their sperm, and thus the more girls the merrier! Yet, women only have one egg — so, having multiple men isn't really going to do anything. Except, I don't want to justify this with evolution — I think it's because homophobia is ingrained from such a young age into children. Even during Sex Ed, you never heard about how to have gay sex.

Actually, Sex Ed will tell you that sex is love. Well, this might be a shock to you, but it's college. People get horny. You're not going to love everyone you sleep with, and

you're not going to sleep with everyone you love. Plus, are you really going to fall in love at MIT? It seems like everyone's too damn busy relying on some sort of formula.

Love isn't about chemistry, but really math! You get A amount of points for this gender, B amount for this race, C amount for this socioeconomic background. Then, if you make it with one standard deviation, you get another function. You have to know someone for X amount of time, do Y amount of things together, and then, maybe, you can make it Facebook official.

Doesn't this all sound just a little ridiculous — relying on logic over feelings for love? What ever happened to just liking people — regardless of gender? Besides, don't we know our own gender the best when it comes to

sex? Maybe. Maybe not. Since I haven't experimented, I can't say. However, I will say that by identifying as purely straight — or purely gay — you're closing off options. It's best to keep an open mind.

College is the perfect place to experiment. Conservatives will argue that it's better to identify as either straight or gay — nothing in the middle — however, it's that grey period where we really define ourselves. I'm not saying that I'm going to go out and sleep with a girl this weekend, but I'm saying if I met one that I really connected with, I wouldn't let my preconceptions control me. Sex is about experimenting, and college is the place to do it.

Curiosity killed the cat, but according to Schrödinger, the cat might already be dead.

*Our society finds it sexy when a girl fools around with another girl, so long as she doesn't identify as purely as lesbian.*

## IHTFO(utfit)

### FASH.101

Top Five Signs This Series Is For You

1. You own a t-shirt for more than 50 percent of the software you run.

2. People ask you if you go to MIT before you say anything.

3. There are more words/pictures in your wardrobe than buttons.

4. Your lab mates taped this article to your monitor or fume hood.

5. You have a casual and a dress xked hoodie.

By Brandon Russell

As a graduate student at MIT, I am consistently amazed at the insight and intelligence of my classmates. Sadly, not a day goes by that I'm not simultaneously shocked by the cluelessness that my fellow males seem to have regarding basic fashion.

Now, I realize this is MIT, and I'm not expecting anyone here to be recruited to revive *Queer Eye for the Straight Guy*. But a basic knowledge of how to look good will do wonders to improve all aspects of your life: academic, professional, and social. So as a service to my colleagues, I've penned a short series of articles for a crash-course on fashion. Think of me as your TA for FASH.101.

Like any good syllabus, this piece starts with the basics. This series is written with no assumptions about prior knowledge, so if you already subscribe to *GQ* or own more pairs of shoes than you do pants, these articles probably aren't for you. Likewise, most of my advice will be aimed at graduate students. That's not to say that undergrads can't use the tips here, but I'm not going to break into Simmons Hall and steal your MATLAB/Simulink t-shirts. Sidney-Pacific, on the other hand, is a different story. Older undergrads that are closer to the career world will likely find these beneficial, as well. If you're unsure if this series is for you, check out my handy guide (inset).

The flow of this "course" is very straightforward. Today's column will serve as a brief introduction to fashion in general and a list of the essentials that every man should

own. Afterward, you'll see me every other Tuesday for an in-depth study of shoes, pants, shirts, outerwear, and accessories. Finally, we'll tie everything together with a shopping and outfit assembly guide.

Sound good? Then let's dive in!

Why should you care about fashion? Because other people do, and those people very often fall into the category of "potentials": potential employers, potential advisers, potential significant others, etc. Now I'm not going to tell you that you'll become an auto-include for every lab on campus just because you look fabulous; if that were true, I'd already have a research adviser. I will tell you that the social scientists (see, they have their uses!) tell us that first impressions are formed in roughly 30 seconds, and appearance is a significant percentage of that impression. Who doesn't like starting out on top?

Now we know that you should care about fashion, let's look at the mechanics (don't you just love that word?). What should you be wearing? The photo in the middle of this page is a prime example of an outfit that every guy should own. Period. What makes this outfit so essential? Modularity.

As engineers, we all understand the revolution ushered in by the concept of interchangeable parts. Fashion works the same way. By buying simple, timeless pieces in classic colors, you maximize your wardrobe options without minimizing your credit score. What are those pieces? Let's go through ...

3. A heavy cotton button-up shirt (known as an Oxford) in a catchy color (pink, light blue, and French blue are great first options, as is a bold stripe pattern) pairs with absolutely anything.

4. A dark skinny tie with a subtle pattern or texture is the perfect bridge between clubbing (slung loose and s h o d d y with the top button or t w o undone) and conferencing (tied higher with a symmetrical knot).

5. A dark blue or gray blazer (without the faux gold buttons) pulls together any outfit with a hint of pizzazz.

6. A slim watch, a dark leather belt, and one unique piece of "flair" (an earring, a bracelet, a necklace, etc.) — it's like your signature for your outfit.

With only three or four pieces in each category, plus some miscellaneous items like t-shirts and sweaters, you can easily assemble >20 unique outfits. Of course, in fashion just like in transport phenomena, not everything is linear, and this many options can quickly become overwhelming when you're running late for office hours (damn ambiguous p-sets...).

So, to streamline things, I've developed a simple formula called "Russell's Equation"; it's like one of Maxwell's Equations with less  $\nabla$  and more sexy. Clip it out and tape it on your mirror and you'll never go wrong.

I'm going to call that a wrap for this week folks. I realize this is new and uncharted territory for many of you, and fashion can quickly become overwhelming (firehose syndrome affects us all). In the mean time, I urge all of you to head out to the mall this weekend and assemble the essential outfit, assuming you don't already own it. See you all next time, looking fabulous I'm sure.

*As engineers, we all understand the revolution ushered in by the concept of interchangeable parts. Fashion works the same way.*

Russell's Equation

Outfits are divided into three components: bottom, top, and accessories. Each piece is given an integer value corresponding to its "dressiness." Summing the values of your outfit yields your "dressy index,"  $\Delta i$ , which can then be matched to the activity you're participating in.

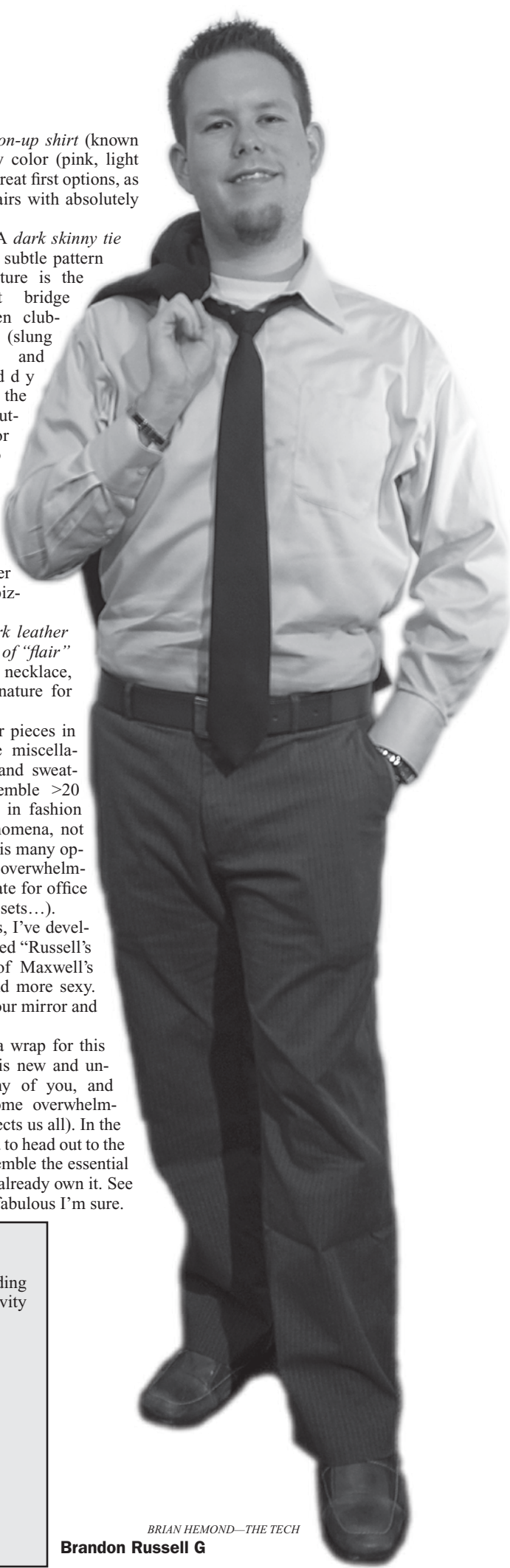
|           |            |            |
|-----------|------------|------------|
| Shorts: 1 | T-shirt: 1 | Tie: 2     |
| Jeans: 1  | Polo: 2    | Jacket: 2  |
| Slacks: 2 | Oxford: 3  | Sweater: 1 |

$0 \leq \Delta i \leq 2$  having sex, playing sports, sleeping

$3 \leq \Delta i \leq 6$  class, lunch/brunch dates, general purpose

$7 \leq \Delta i \leq 10$  dinner dates, clubbing, job interview

$\Delta i > 10$  fashun kitteh sez yur doin it rong



BRIAN HEMOND—THE TECH  
Brandon Russell G



# Brouhaha Rhythm

## What’s All This Crud About No Movie Tonight?

By Michael Lin  
STAFF COLUMNIST

I’ve always been of the school of thought that motion pictures are meant to be a communal experience. Watch Buster Keaton’s *The General* at home on your computer screen, and it’s pretty funny. Watch it on a large screen surrounded by dozens of other people, and it’s absolutely hysterical, especially on a first-time viewing. As far as serious cinema is concerned, being able to laugh or cry with others is perhaps the best way for people to grow closer with a group.

The multiplex is a space governed by its own rules and unspoken declarations. Hormonal teenage couples with no intention of watching the movie should choose seats that are out of the way where their escapades can be more easily ignored. Talking in the theater is an offense punishable by condemnation to a special level of hell. Bring a laser pointer only if you wish to have it illuminating surfaces that have never seen the light of day.

For some, the multiplex is hallowed ground, where the progression of human culture is documented on celluloid and presented for all to view and judge. How philistine are they who believe that the Star Wars opening

crawl is somehow equally epic on a 16-inch laptop screen as it is on a 40-inch television set or a 75-foot theater screen!

Of course, not all movies become better upon viewing in a public setting or on a larger screen in non-Grainy-Vision. I suspect that watching *Ghost Rider* again with a dozen of my friends as opposed to at home on television might not add to the experience as much as it subtracts from my pool of friends.

The same goes for any of a wide array of romantic comedies (like almost the entirety of Hugh Grant’s IMDB page), where expanding the image and adding surround sound would be like adding spoilers and racing stripes to a minivan. You could do it, and it would make for quite the spectacle, but you’d really only end up making it bigger rather than genuinely better. Even so, there’s something strangely appealing about the sticky floors — or, as has been the case more recently, shouting at the screen — that makes watching films alone and in private close to a non-option.

Adding to the enjoyment of communal film-watching is the shared language — film quotes. In spite of the fact that overuse can make even the pithiest film quote become trite and tiresome, used properly and in the

appropriate context, their proper use allows for increasingly potent communication between those who understand them. Because each quote carries not only its superficial meaning but also an unspoken context, quotes have the potential to imply much more than they seem.

If your friend tells you more than you care to hear about their oh-so-fascinating venture into a public restroom, you could cover your ears and shout “TMI,” which could earn you a dirty look in exchange for the requested peace and quiet, or you could clench your fingers and exclaim, “Oh, GAWD!! I can’t know that!”, and instead induce laughter. Perhaps you’re sitting in a delicatessen, and a lady at the next table are enjoying their meal a little too much or a little too loudly. When your server comes to you, you can either offer an overly-complicated order for apple pie a la mode (with liberal requests for things “on the side”), or you can simply tell

him or her, “I’ll have what she’s having.” See? Easy as lyin’.

Using a quote tells the people around you something immediate and definite about something that you might have in common. And if nobody else understands it, you know something about them, and you have a new topic of conversation. Plus, using quotes doesn’t always have to be about conveying meaning - sometimes you can use one just to be funny. Just about anything can “go up to eleven,” if you really want it to.

There are few things in this ‘verse quite as special as a movie with an assemblage of strangers and friends. Maybe C-beams glittering in the dark near the Tannhauser Gate, or the smell of napalm in the morning. Now, if you’ll excuse me, I need to track down some friends for my next movie night, perhaps for dinner as well. I could do with a Royale with cheese and a five dollar shake.

*Hormonal teenage couples with no intention of watching the movie should choose seats that are out of the way where their escapades can be more easily ignored.*

# Underground Inquiry

## Ice Worms and Jules Verne

By Danbee Kim  
STAFF COLUMNIST

A fascinating creature lives in the glaciers and snowfields of the North American continent. Measuring less than an inch and long thought to be mythical creatures, ice worms not only survive in this harsh environment, but they have evolved to thrive in it. In fact, if an ice worm is warmed to even just 5 degrees Celsius (or about 40 degrees Fahrenheit), the proteins making up their membrane structures disassociate and they “melt.” As a result, while most of life on Earth seeks out the sun for sustenance, the sun is the ice worm’s mortal enemy. Ice worms have thus been scientifically dubbed “solifugus,” which is Latin for “sun-avoiding.”

During the warmer months of the year, ice worms swarm to the surface of glaciers at sunset to feed. In 2002, the mean recorded density of ice worms on the Suiattle Glacier

in Washington state was approximately 2600 worms per square meter — meaning about 7 billion ice worms inhabit the 2.7 square kilometer glacier! And what exactly do all these creatures find to eat in this barren landscape? Snow algae.

To counter the nocturnal visual phenomena of a glacier practically pulsating with the bodies of billions of worms, summer days on these glaciers are the stage for yet another beautiful sight. For thousands of years, mountain climbers, naturalists, and explorers have been puzzled and fascinated by huge swaths of pink and red in the snow, sometimes called “red snow” or “watermelon snow.” Turns out, this colorful phenomena is due to another cold-loving organism that absolutely thrives in freezing conditions: a unicellular algal member of the division Chlorophyta, surnamed *navalis*, which roughly translated means “of cold.”

In addition to chlorophyll, this snow algae

contains a bright red carotenoid pigment similar to the pigment cells found in tomatoes, autumn leaves, and red peppers. They leach minerals and nutrients from boulders, the underlying soil, and decaying debris such as pollen that’s been blown up the glacier from below the tree line. Growing in highly concentrated “blooms” that can be up to 25 cm deep, they are the base of an incredible food network dominated by the ice worms.

And what does this have to do with Jules Verne? Considered by many to be the “Father of Science Fiction,” Jules Verne has been noted for making numerous predictions about the future of science and technology with startling accuracy. 20,000 Leagues Under the Sea predicts submarines, From the Earth to the Moon predicts the Apollo program (even launching astronauts from “Tampa Town” on the Florida peninsula and returning them to Earth via a splash landing in the ocean), and Paris in the 20th Century predicts air-conditioning, the Internet, high-speed travel, and electric chairs.

In 1866, Verne wrote *The Adventures of Captain Hatteras*, a two-part novel: The English at the North Pole and The Desert of Ice. Not only does Verne write about traveling to the

North Pole decades before such an expedition was possible, in *The Desert of Ice* he writes of a red snow effect caused by microscopic fungi. At that time, red snow was still attributed to meteoric iron deposits, and it wasn’t until the turn of the century that high concentrations of microscopic algae were finally given credit for the phenomenon.

These days, ice worms hold a fascination beyond their sheer oddity and curious connection to a boldly speculative writer. Study of the worm’s metabolic enzymes, which are catalyzed instead of frozen (pun intended) by sub-zero temperatures, might improve storage and transportation methods of harvested organs; also, NASA is curious to see whether these cold-loving creatures can tell us anything about the possibility of life on the frozen planets and moons of our solar system. And academic interest in ice worms and their fellow glacier-dwellers is increasing in the face of glacier shrinkage due to global warming. What other ridiculous curiosities might be gleaned from a habitat that could disappear in the next hundred years?

This episode brought to you by imagination.

*As a result, while most of life on Earth seeks out the sun for sustenance, the sun is the ice worm’s mortal enemy.*

# A VP Debate Drinking Game

## Brought to you by CL

This Thursday! A debate for the ages! Two contestants, one vice presidency! Who will earn the honor of succeeding Dick Cheney? In the blue corner Joe “I take the train home” Biden. In the red corner Sarah “I can see Russia from my house” Palin.

## Blue Team Rules

- ¶ For every mention of Scranton, Pennsylvania: Take a sip.
- ¶ When Biden begins the “I take the train home everyday story” being drinking. Don’t stop ’till he finishes.
- ¶ When Biden questions Palin’s inexperience: Drink something you’ve never had before
- ¶ When Biden makes an obvious gaffe: Spill your neighbor’s drink
- ¶ When Biden uses X words when Y will do: Drink X-Y seconds
- ¶ When Biden patronizes or self identifies with the working class: Down some brew (Bonus points if you use Miller Highlife)
- ¶ When Biden lambastes Washington Insiders: Make a toast to his 35 years of experience in the United States Senate

The Joe Biden checklist. If he mentions all of the following, finish your drinks: Blue Collar, Golden Parachute, Little Guy, Washington Insider, Working Class, Clean

## Red Team Rules

- ¶ Every time Palin cites Alaska’s proximity to Russia as “foreign policy experience”: Take a shot of vodka
- ¶ When Palin claims she said “Thanks but no thanks” to the Bridge to Nowhere: Demand a new drink from your hosts, say “thanks but no thanks,” and then when no one’s looking, take it anyway, then claim you never wanted it.
- ¶ When Palin recounts putting the governor’s jet on eBay: Auction off a beer to your friends
- ¶ When Palin insists that governing a small town in Alaska is in fact experience: Give your friend a shot glass of beer when he/she asks for a pint and insist it’s the same thing.
- ¶ When Palin points out that Biden thought Obama was too inexperienced for the job: Finish your drink and say, “Oh Snap!” If you’re a democrat, follow this by crying.
- ¶ When Palin claims that Washington’s problems can be solved by small town know how and common sense: Drink a Labatt Blue as you read up on how to become a Canadian citizen.
- ¶ When Palin talks about being the most popular governor in the country: Go to a room by yourself, realize you’re the most popular person in the room, then finish your drink.

The Sarah Palin checklist. If she mentions all of the following, finish your drinks: Bush Doctrine, Snow Machine, Moose, Lipstick, Hockey Mom, Family Values



# MIT's Soljacic and Ochsendorf Win MacArthur Prizes

By Carolyn Y. Johnson  
THE BOSTON GLOBE

A Harvard neurobiologist who regularly does surgery on fruit fly brains smaller than a poppy seed, and an MIT structural engineer who searches for modern design principles in Gothic churches, are among the 25 winners of the \$500,000 MacArthur “genius” grants announced last week.

The two — Rachel Wilson, a neurobiologist at Harvard Medical School and John A. Ochsendorf, a structural engineer from MIT who probes ancient structures for modern design principles - join two other “geniuses” from New England. They are Marin Soljacic ’96, a theoretical physicist from MIT who demonstrated a way to transmit electricity without wires; and Stephen Houston, an anthropologist from Brown University who probes Mayan artifacts and writings to better understand the ancient society’s culture.

All four said the out-of-the-blue phone call notifying them of the award will change their life.

Unlike awards that recognize a lifetime of achievement, the five-year fellowships sponsored by the John D. and Catherine T. MacArthur Foundation are given to people at a pivotal point in their career. This year’s winners of the no-strings-attached award range from a 30-year-old violinist to a 71-year-old stage lighting designer.

“The idea is to pick exceptionally creative people at an important moment in their career, and give them the financial freedom to pursue their work,” said Jonathan Fanton, president of the MacArthur Foundation.

Fanton noted that this year, there were nine scientists — an unusually high number — among the fellows. He also pointed out that Massachusetts continues to field many fellows. Historically, he said, the state has ranked in the top three, behind New York and California, which have much larger populations.

The number of MacArthur winners from New England has varied widely over recent years, from one last year to as many as eight in 2006.

The nomination and selection process for the MacArthur award is known for its secrecy. Several hundred anonymous nominators suggest possible fellows, and then the list is whittled to 125 potential fellows. An anonymous panel of “selectors” choose the winners. When the MacArthur Foundation begins to make the calls, Fanton said, the reactions have ranged from shrieks of excitement to a fainting spell.

Soljacic recalled that he was driving to pick his son up when his cell-phone rang. The caller urged him to pull his car to the side of the road, and then told him he had won the award. The rest of the phone call was

*The nomination and selection process for the MacArthur award is known for its secrecy.*

a blur, said Soljacic, 34, of Belmont.

He is looking forward already, he said, to the opportunity that the grant will give him to pursue the “far out,” high-risk ideas that might not be funded by traditional sources.

In addition to his work on wireless electricity, Soljacic works in a field called nanophotonics, looking at how light can be manipulated at a very small scale to create the foundation of a new method of computing - using light instead of electrons.

Ochsendorf, 34, of Cambridge, said he had already spent some nights lying awake thinking about how the honor will help his work, which has sometimes been a struggle because it lies between so many disciplines: architecture, archaeology, engineering, and green design.

He argues that ancient structures — from Incan suspension bridges made of grass, to vaults and buttresses in Romanesque churches — may hold clues to designing stronger, or more sustainable, structures today.

“It can be difficult if you don’t fit into one field easily. This is kind of the ultimate affirmation that the risk-taking has paid off and I should keep following my passion for what I’m doing,” Ochsendorf said.

Wilson, 34, of Brookline - whose surgery on fruit flies is aimed at understanding the neural circuitry behind the sense of smell — said her award underscored the idea that simple organisms that seem primitive may yield powerful insight into how things work.

“We study fruit flies partly because when you sit back and think about it, a little fruit fly is an amazing little creature,” she said. “Nobody in the world can build a robot that does everything a fruit fly does.”

Houston, 49, called the award a “humbling” bolt of lightning. He said the award comes at an opportune time; he is currently in the midst of excavating a site in northern Guatemala, where he is continuing the work of delving into both the physical remnants of an ancient culture — and into their intellectual culture.

“They’re so absolutely gone — you’re talking about people that died 1,200 to 1,300 years ago — and yet there are vestiges of these really ephemeral and short-lived emotions,” he said.

Also among the 25 winners is Miguel Zenon, a New York saxophonist with Boston ties; he left San Juan to study at the Berklee College of Music in 1996.

The other winners are: Chimamanda Adichie, a Nigerian novelist; Will Allen, an urban farmer from Wisconsin; Regina Benjamin, a rural family physician from Alabama; Kirsten Bomblied, a plant evolutionary geneticist at the Max Planck In-

stitute for Developmental Biology in Germany; Tara Donovan, a New York sculptor; Wafaa El-Sadr, a Columbia University infectious disease physician; Andrea Ghez, a University of California, Los Angeles astrophysicist; Mary Jackson, a South Carolina fiber artist; Leila Josefowicz, a New York violinist; Alexei Kitaev, a physicist and computer scientist from the California Institute of Technology; Walter Kitundu, an instrument maker and composer from the Exploratorium in San Francisco; Susan Mango, a University of Utah developmental biologist; Diane Meier, a geriatrician from Mount Sinai School of Medi-

cine in New York; David Montgomery, a University of Washington geomorphologist; Peter Pronovost, a Johns Hopkins University School of Medicine critical care physician; Adam Riess, a Johns Hopkins University astronomer; Alex Ross, music critic for The New Yorker; Nancy Siraisi, a New York historian of medicine; Sally Temple, a neuroscientist at the New York Neural Stem Cell Institute; and Jennifer Tipton, a New York stage lighting designer.

The 2008 awards — which are taxed — will be given in quarterly \$25,000 installments each year for five years, starting in early 2009.

STANFORD



biodesign innovation

f e l l o w s h i p s

Developing Leaders in Biomedical Technology Innovation

Explore the basics of biomedical technology innovation through an intensive, hands-on fellowship at Stanford University's Biodesign Program.

Join teams of graduate engineers, business professionals, bioscientists and physicians to master the key stages of the biodesign process.

Apply now for 2009-2011

Needs identification & verification  
Brainstorming  
Invention, prototyping, patenting  
Early stage testing  
Regulatory & reimbursement planning  
Financing  
Project implementation

Applications Due:  
Clinicians: September 30th, 2008  
All others: November 30th, 2008

apply online: <http://biodesign.stanford.edu>  
for further information contact: (650.736.1160) or [biodesign@stanford.edu](mailto:biodesign@stanford.edu)

T-SHIRTS

...a necessary fact of College!

- Deal direct...no middlemen
- Fast turnaround
- Award winning & computer literate art dept.
- Free delivery & reasonable pricing
- Full color t-shirts and coffee mugs - no minimum!
- Locally owned & operated in Somerville, MA.

...and best of all - no boring lectures

ph - 617-625-3335

email - [info@qrsts.com](mailto:info@qrsts.com)

[www.qrsts.com](http://www.qrsts.com)

serving the M.I.T. Community since 1989



QRST's

part of R.A.W. (Rinnigade Art Works)



# Hockfield Discusses 'Tough' Admissions

*Reif, Clay, and Stone Mention Research, Opening of Ashdown, and Energy Savings*  
Speech, from Page 1

reached a value of \$435 million, a 27 percent increase from last year. The ample resources are being used for projects improving Institute facilities, such as the Media Lab extension, the renovation of Vassar Street West, and the new buildings for the Sloan School of Management and the Koch Institute for Integrative Cancer Research.

Hockfield went on to talk about the "tough" year in admissions, due to Harvard, Princeton, and University of Virginia abandoning their early decision programs and making aggressive financial aid announcements. Nonetheless, MIT received a record number of applicants, nearly 13,400, an 8 percent increase from last year. Of the 11.9 percent admitted, two-thirds accepted their offer, the 3rd highest yield in the Institute's history. About 60 percent of the admitted undergraduates have received financial aid that brings their average annual tuition to about \$8,000. According to Hockfield, the tuition does not cover even half the cost of providing a student with an MIT education.

Hockfield also highlighted recent faculty achievements, including two of twenty-five MacArthur fellows, three of sixteen Pioneer awards, and five Howard Hughes Medical Institute awards.

Hockfield also mentioned the MIT Energy Initiative, and the growing awareness of MIT's contribution to conserving energy. Hockfield said that this shows "how much the world looks to and trusts MIT."

Hockfield also mentioned that



Susan J. Hockfield listens to (from left) Jennifer H. Moore '09, Karlen E. Ruleman '09, and Matthew S. Goldstein '09 give her advice on choosing a college for her daughter, Elizabeth Byrne.

\$500 million had been raised for MIT's 150th birthday celebrations in 2011.

Reif began his speech with the declaration: "This period of time, more than any other in MIT's history, belongs to MIT." He then went on to describe the research being carried out in the different schools: The School of Engineering is working to convert body heat and vibrations to energy that can be used to run electronic devices; the School of Sciences is trying to converge

life sciences with physical sciences to find new techniques for the detection, treatment and prevention of cancer; the School of Humanities and Social Sciences is coming up with opportunities for global study; the Sloan School of Management has introduced a new Master of Finances Program and is conducting research in sustainable economic development; finally, the School of Architecture and Planning is coming up with projects to overcome human disabilities. He ended on an optimistic note,

"MIT's best years are yet to come."

Clay discussed the physical improvements brought about to campus, including New Ashdown house that was opened six weeks ago and the Northwest Community, which boasts of 1500 students. The Chancellor said that the Institute is working on Old Ashdown, which is expected to join the campus as a "strong dorm" in two years. Clay said that MIT's commitment to support students during these challenging economic times is "as strong as ever."

Stone talked about the energy initiative that is being led by a task force consisting of professors from each of the schools as well as graduate and undergraduate students.

According to Stone, after the steam trap demonstration project carried out on East Campus, half of the academic buildings have been attached with traps leading to annual savings of \$360,000. The Institute has also been using heat recovery pipes, which are expected to reduce annual energy costs by \$444,000. Stone added that a new energy conservation investment fund is being piloted at the moment.

After a brief question and answer session, the forum dispersed for lunch, during which individual administrators answered a few more questions posed by the audience.

This was the second State of the Institute forum to be held after a three-year hiatus. The most recent forum prior to last year's was held in 2004, during the tenure of former President Charles M. Vest.

## HASS-D Changes May Come in 2010

Double Majors, from Page 1

degree programs, which, since the General Institute Requirements were counted in both degrees, was not true for MIT's double degree program.

While the most significant change for students is the removal of the 90 extra units, there are other changes in requirements from the double degree to the double major. Students wishing to begin a double major program may do so after completing one term at MIT within their first declared major, as opposed to having to complete two terms within the first major for a double degree. The completion of both majors must also be at the same time, while two degrees were permitted to be completed on separate occasions. Students must still have a 4.0 GPA or above to apply for two major programs and may pursue two minors in fields unrelated to either major.

Some points of concern have been raised about the changes. Henderson said that some faculty members were worried that students would "dilute their efforts" in their fields and would extend themselves too far in pursuit of the second major. Student concerns were also voiced that more pressure would be placed on students to pursue the major since requirements are not as onerous. However, other task force recommendations have been more controversial, Henderson said, whereas reaction to the double major shift has been primarily positive. Substantial amounts of student and faculty input were retrieved throughout the task force decision process, and while Henderson said that the double degree program was not one of the most salient concerns of the community, it "was one [change] that was very positive and there was consensus about it."

Seniors who are currently pursuing the double degree may not switch to a double major. Juniors who have already declared the dual SB may continue their studies or change to the double major option. Sophomores have the choice to declare either the double degree option or the double major option, and freshmen may only pursue the double major.

Other recommendations by the task force are still being discussed in committees and faculty meetings. The Educational Commons Subcommittee of the Committee on the Undergraduate Program is currently refining the GIR and HASS recommendations by the task force, two of the most controversial proposed changes. The proposed GIR model by the task force required students to take mechanics, single-variable calculus, and multivariable calculus but gave them the flexibility to choose from five out of six GIR categories including computation, mathematics, and physical science. This proposal was met with criticism by faculty concerned that students would not have a reliable foundation to begin study of any major.

The task force HASS recommendations included the addition of requiring freshmen to take Freshmen Experience HASS classes, simplification of the HASS categorization, and completion of the distribution requirement by the end of sophomore year. Concerns were voiced about the more constraining setup of the requirements.

The Educational Commons Subcommittee is currently refining and reviewing the proposals of the task force and will present at the October faculty meeting. A restructuring of the HASS-D categorization would be the change most likely to occur soon, with a projected date of 2010.

→ MISTI
MIT International Science and Technology Initiatives

**EECS students:**  
Where do you want to go?

|       |        |         |
|-------|--------|---------|
| China | France | Germany |
| India | Israel | Italy   |
| Japan | Mexico | Spain   |

**Go International!**  
with  
**EECS & MISTI**  
**OPEN HOUSE**  
**Tuesday, October 7**  
**4 to 6pm**  
**MIT Stata Center (32-G449)**  
**Explore opportunities**  
**Meet returning interns**  
**International Food!**

Massachusetts  
Institute of  
Technology

[mit.edu/misti](http://mit.edu/misti)

## Saturday, October 4, 2008 - Smoot Day!



Join us for an all-day celebration of the 50th anniversary of the painting of Oliver "Ollie" Smoot '62 on Harvard Bridge. Commemorative events include:

- |            |  |
|------------|--|
| 11:30 a.m. | Charles River Cleanup Volunteers' BBQ Lunch, Kresge BBQ Pits |
| 12:30 p.m. | Smoot Plaque Presentation, Kresge BBQ Pits                   |
| 1 p.m.     | Charles River Cleanup  |
| 5 p.m.     | Herb Reed and The Platters Concert, Kresge Auditorium        |
| 6:30 p.m.  | Big '50s Party, MIT Museum                                   |

For more information, visit [web.mit.edu/smoot](http://web.mit.edu/smoot)



# Business Schools Counsel Grads in Financial Crisis

By Robert Weisman  
THE BOSTON GLOBE

Last week, Harvard Business School mounted its own emergency rescue mission on Wall Street.

In the school's first intervention on behalf of newly minted graduates, seven Harvard career coaches flew to New York to huddle with 18 members of the Class of 2008 who had taken jobs at troubled firms like Lehman Brothers Holding Co. and Merrill Lynch. All were still working, but didn't know what the next day would bring. Harvard's delegation promised to set up interviews with other employers.

"We wanted to help them navigate very choppy waters," said Jana P. Kierstead, managing director of MBA career services at Harvard Business School, where 44 percent of this year's graduates went into financial services. "What they thought they signed on for has changed. The dynamics of the industry have changed. So they each have to decide whether they want to pursue other opportunities."

Business schools are responding with counseling, classroom analysis, curriculum changes, and case studies to the convulsions that have led to the bankruptcy or fire sales of leading U.S. financial firms and efforts toward a federal bailout. At schools that have long funneled graduating MBAs to Wall Street, professors are teaching about the crisis, even as their students ponder what it will mean for their careers.

"It's shocking," said Akbar A. Thobhani, 31, a second-year student at MIT's Sloan School of Management in Cambridge, who interned at Lehman Brothers last summer and had hoped to land a full-time job there. "No one's getting offers now. They told us, 'Thank you for your summer.' Now a lot of us are reconsidering everything."

Many longtime faculty members and administrators say they have never seen a series of events with greater potential to transform the focus of business education — and the career trajectories of their students.

"This is the intellectual lodestone of the 21st century," said Carl Kester, deputy dean of academic affairs and finance professor at Harvard Business School. He said a number of professors already have begun researching case studies on this month's spate of bank failures. "Our biggest responsibility right now is to grapple with this intellectually. We want to understand what got us in this situation, what needs to be done, and the shape of Wall Street going forward."

"It's the classic teachable moment," said Philip Strahan, finance professor at Boston College's Carroll School of Management. "I start every class with 15 or 20 minutes about what happened last week. In talking to my colleagues, they're also talking about it in every class."

Thomas Donaldson, professor at the Wharton School of the University of Pennsylvania, has called "time outs" in his classes to address the Wall Street turbulence, and is modifying his course next semester to address the issues being raised. Last week, he said, a Wharton panel on Wall Street's woes drew more than 1,000 students.

"We send a third or more of our students into banking or financial services," he said, "so this is a big thing for us. It's got our attention as educators and students."

Many second-year students typically receive job offers just after Labor Day. This year, a smaller number of those offers have come through, students and administrators said. Even relatively healthy firms, such as Goldman Sachs Group Inc., have delayed making offers.

"There's going to be 30 percent fewer jobs, maybe 50 percent, on Wall Street," warned Howard Anderson, a professor at the Sloan School and a former venture capitalist. "And everyone who graduated last year is coming back into the marketplace because Lehman just fired them. People are going to have to get a real

job." For some students who'd thought they were Wall Street-bound, that "real job" might be in the corporate finance department of a technology or a manufacturing company. It might be in a financial niche, such as private equity, less affected by investment banking problems. Or it might be at a start-up or in a field outside of finance.

"Wall Street was an option, but now I'm not so sure," said Melissa Iagulli, 26, a first-year Sloan student. "A lot of us are discouraged by what we've seen. Consulting is sounding good."

But even if she signed on with a management consulting firm, Iagulli said, she would likely be deployed to advise surviving financial firms on how to restructure and move forward. "The finance industry will need a lot of help," she said, citing anticipated restrictions on exotic types of investing. "Now that investment firms won't be able to short stocks, they'll have to find some other way to make money."

The impact has been cushioned on those business schools that haven't been major feeders to Wall Street investment banks. More than 200 companies attended a career fair last week at Bentley College in Waltham, which places many students at Boston asset-management firms like Fidelity Investments and State Street Corp. as well as in the

finance and accounting departments of non-financial firms.

Even in the classroom, Bentley

*The impact has been cushioned on those business schools that haven't been major feeders to Wall Street investment banks.*

has soft-pedaled the crisis. "In a sense, it hasn't impacted our curricu-

lum at all," said Bentley provost Bob Galliers. "We were already educating our students to understand risk, to understand ethics, and we're putting all this in a broad context. This is an example of what can go wrong. But if this hadn't happened, other examples would have been given."

Sloan, by contrast, has been making a stronger play to the finance industry. The school, which typically sends 25 to 30 percent of its graduates into financial services, will this fall begin taking applications for a new master of finance degree program intended to make graduates "even more attractive and important

to potential employers on Wall Street and beyond."

A Sloan alumni career adviser, Ken White, said he already has had individual counseling sessions with about a dozen Sloan alums working at Lehman Brothers, which has filed for bankruptcy protection.

White said at least one is considering a career switch. He's thinking about becoming a financial regulator — potentially a growth field in the aftermath of the crisis.

"I'm telling them not to follow the crowd," White said. "If everyone's flocking to hedge funds, go someplace else. Go to the feds."

## EGG DONORS NEEDED

We are seeking intelligent, attractive, non-smoking women between the ages of 21-29 who are physically fit and maintaining a healthy lifestyle. \$20,000 plus all expenses. If you have a desire to help an infertile family please contact us.

Email: [darlene@aperfectmatch.com](mailto:darlene@aperfectmatch.com)

1-800-264-8828 [www.aperfectmatch.com](http://www.aperfectmatch.com)

Perfectly matching donors with families since 1998

A company is known by the people it keeps



A great company isn't in the logo or annual report, it's in the hallways and offices. Because it's the people that make it so great. Join GE and get all the incredible benefits of a global leader, plus something you won't find anywhere else: a great company that will keep you in really great company with a career in engineering, finance, manufacturing, sales and marketing, human resources, or information technology.

[www.gecareers.com](http://www.gecareers.com)

## General Electric Information Night

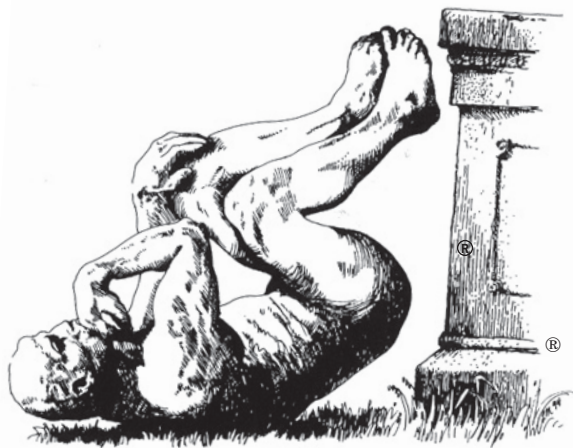
Learn about GE at Info Night and enter to win a digital camera! Come early for pizza at 6:30 p.m.; the presentation starts at 7 p.m.

October 1  
6:30 p.m. – 9 p.m.  
Location: 4-270



imagination at work





## The Ig Informal Lectures

Saturday, October 4, 1:00 pm  
MIT 10-250, 77 Mass. Ave., Cambridge

Once again, The MIT Press Bookstore is proud to partner with some *Improbable* friends to bring you a half-afternoon of improbably funny, informative, brief (5 minutes each, plus a few questions & answers with the audience), high-spirited public lectures, in which the 2008 Ig Nobel Prize winners will attempt to explain what they did, and why they did it.

For more information on the 2008 Ig Nobel Prize Ceremony and the Ig Informal Lectures, please visit: <http://www.improbable.com/>

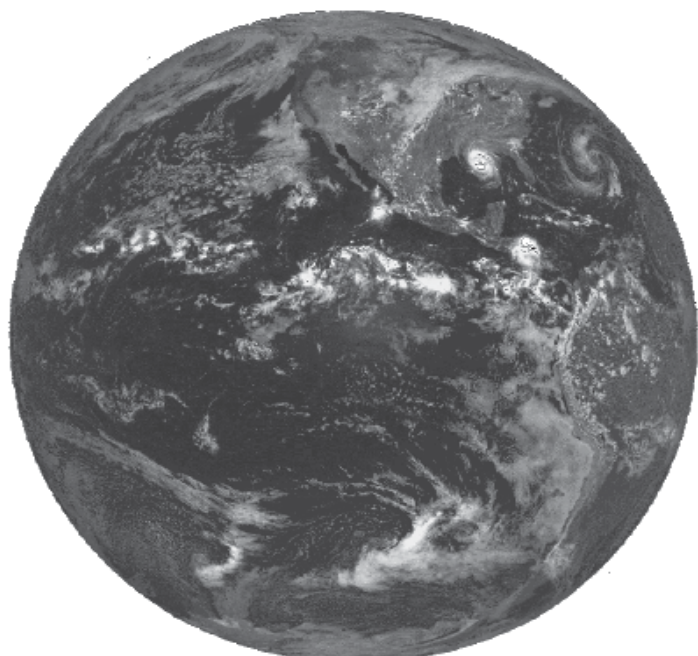
Tickets are still available for the ceremony at Harvard's Sanders Theatre on Oct. 2nd!

All Ig Nobel Prize activities are organized by the Annals of Improbable Research.  
This free event is organized in cooperation with the MIT Press Bookstore.

MIT International Development Network Presents:

## 7<sup>th</sup> Annual International Development Fair

Friday, October 3, 11-1pm  
Lobby 13



For more information visit [web.mit.edu/idn/events](http://web.mit.edu/idn/events)

## Project to Analyze Voting Systems, Not Make Own Machines

E-Voting, from Page 1

ers to ask them about their experience with voting on Election Day. "We will sample over 10,000 voters, drawing samples in each state of the country. So, we will be able to gauge not only how well the election went nationally, we will also be able to tell whether particular states offered special problems, or went especially well," Stewart said.

"Another big project we are working on is trying to understand empirically all the things that are related to voting machines," Stewart said.

"One thing we are trying to look at is voting machines not recording the votes people have made. As what happened in Florida in 2004 when the votes had to be re-counted, some machines are more prone to break down, more prone to confuse voters. That's what we study," he said. "It's an issue we call 'lost ballots'."

### Auditing the election — a tricky task

As for whether MIT will try to audit this election, the MIT project is not an auditing project per se, Stewart said. "Some of us on the Caltech-MIT Project will be doing analyses after the election to try and understand the role that voting technologies played in the results of the election, which will have some characteristics of an audit," he said.

"It's a term that's being thrown around a lot," he added. "What my colleagues are going to do is research nationwide to see if the machines that are set up nationwide are prone to break down. That's more a statistical task," he added.

Auditing can at times be theoretical, and at times applied, Stewart said. "The amount of data that is produced is enormous." Thus, he continued, "it's physically impossible for a human being to take a look at every single paper ballot," which is what people usually refer to when they talk about "auditing ballots."

Ronald L. Rivest, professor of Electrical Engineering and Computer Science and a member of the VTP faculty, is doing research on auditing, elections and cryptography — a technology some voting systems use to ensure that votes were cast correctly, detect possible fraud or malfunction, and provide a means to audit the original machine.

Rivest, who is also a member of the technical advisory board of the

Election Commission, which regulates voting, is currently working on a system that sample precincts.

In an interview, he stressed that MIT is not doing research on paperless voting systems.

"My own research does not involve paperless voting systems, although paper can be used in a variety of ways to improve a voting system. A purely electronic voting system would typically not be 'software independent,' and so you would have to trust that the software is correct and unmodified in order to have confidence that the election result is correct," he said.

"By and large, paperless voting systems would be 'software dependent,' so that an undetected error or change in the software could cause an undetectable change in the election outcome.

This would be very undesirable," he said.

### No MIT voting machines

As to whether MIT will one day make its own voting machines, Rivest said, "we do research on voting systems, and may produce prototypes. We don't produce them for others to use, a vendor would do that."

Stewart said MIT is not working on building electronic machines, but is studying the impact of electronic voting machines.

"That MIT might be working on its own machines is an idea that dates back to 2001," Stewart said, "but we are less interested in making our own machines than in providing more technical information and fundamentals in science and engineering."

As examples of MIT research closely tied to e-voting machines, he cited former Caltech-MIT VTP co-director Ted Selker's work on electronic interfaces, protocols for securing votes electronically, and on audio systems that could read back votes cast on electronic voting machines. One application of the latter is for blind and visually-impaired people to have a way of having their vote read back to them so they can ensure it has been recorded correctly.

Jonathan Goler '04, who designed and developed the Caltech-MIT VTP as a UROP, said in an interview earlier this month, "MIT will never produce its own e-voting machine. MIT will probably continue to release concepts for improving the electronic voting process, such as the Low Error Voting Interface and Secure Architecture for Voting Electronically."

This is the first half of a two-part series on electronic voting. The second half will be published this Friday.

*"That MIT might be working on its own [voting] machines is an idea that dates back to 2001"*

— Charles H. Stewart

### LEGAL COUNSEL

MIT students, family, employers and start-ups seeking U.S. legal counsel, campus or office consultation. Call:

James Dennis Leary, Esq.  
321-544-0012

# got sperm?

SPERM DONORS  
NEEDED

Up to \$1100 a month!

Healthy MEN in college or with a college degree wanted for our sperm donor program.

Minimal time commitment

Help people fulfill their dreams of starting a family.

Receive free health and genetic screenings.

APPLY ONLINE:

[www.SPERMBANK.com](http://www.SPERMBANK.com)



# MIT Football Victory Marks 100th Career Win for Coach Smith

Football, from Page 16

Langdon for 29 yards and another score. Justin Nelson passed to a wide-open Chris Vallee for the unexpected two-point attempt as Nichols moved in front, 15-7.

The Nichols offense re-took the field just 21 seconds later after the Engineers answered with another score. Stephen L. Yablonski '11 broke through the middle and down the left sideline en route to an 80-yard touchdown run on the second play of the MIT drive.

Oberg put the finishing touches on a nine-play, 65-yard drive on the Bison's ensuing possession with a 15-yard touchdown toss to Nelson. The extra point attempt failed, leaving Nichols ahead, 21-14.

Brown, who rushed for a game-high 179 yards on 28 carries, scored his second touchdown of the day on MIT's next possession from 23 yards out. Unfortunately, the Engineers left two minutes on the clock, enough time for the Bison to march back down field and reclaim the advantage. Oberg used his legs for the go-ahead score, crossing the line from one-yard out and nine seconds remaining in the half.

Ahead 29-21, Nichols appeared to gain control by scoring on its first possession of the second half. Covering 52 yards on nine plays, Oberg found Little in the end zone from 11 yards out to give the Bison a 15-point advantage. Although MIT would respond with a lengthy drive that ended with Robert C. Utz '09 closing the deficit back to eight, Robert Morris exploded for a 40-yard run at the end of the third quarter to push Nichols ahead, 42-28.

The Engineers delivered a tremendous final quarter of play to complete an improbable comeback. Assembling the game's longest drive at 14 plays and 73 yards, the Engineers closed the gap to 42-34 after Utz punched it in from the one-yard line.

After forcing a quick three-and-out, the MIT offense went back to work by covering 87 yards in just over three minutes. Brown capped the drive with a 47-yard touchdown that pulled MIT within two with seven minutes left in the game. Mancuso tried to hit Tony McDonald in the back of the end zone on the ensuing two-point try, but the pass sailed high.

Nichols ran nine plays and chewed up four minutes on its next drive but only managed 23 yards before Gibson's sack put MIT in the driver's seat for an unforgettable finish.

## Sports Shorts, continued

Sports Shorts from Page 16

The Cougars ended the shutout at the 69:04 mark when Doenmez sent a free kick into the box and Mike Trobagis converted the pass with a diving header into the far corner. Despite playing with a man down during the final 10 minutes of the game, Clark had three chances to post the equalizer but each attempt was snuffed out by Caldwell.

Caldwell finished with nine saves while Wise collected four for Clark.

—Mindy Brauer, DAPER Staff

## Women's Volleyball Places Fourth at MIT Invitational

Following a 2-2 outing, the MIT Women's Volleyball team finished in fourth place at the MIT Invitational this past weekend. MIT swept Bridgewater State College (25-12, 25-18, 25-7) and Bates Col-

lege (25-22, 25-21, 25-11) in pool play on Friday. The Engineers (10-8) dropped a five set-thriller to Connecticut College (20-25, 25-20, 21-25, 25-22, 22-20) before falling to Springfield College (25-23, 25-22, 25-21) in the third-place match. Alexandra T. May '10 represented MIT on the All-Tournament Team.

In Saturday's semifinal match with Connecticut College, May tallied 19 kills, 16 digs, and four blocks while Katrina M. Ellison '10 posted 10 kills, a .588 hitting percentage, seven digs, and five blocks. Barden E. Cleeland '10 totaled eight kills and six blocks as Kelly E. Schulte '12 recorded nine kills and five aces. Catherine Melnikow '10 finished with 46 assists and a team-high seven aces.

May wrapped up the weekend with 15 digs, 10 kills and two blocks against Springfield. Cleeland had nine kills and four blocks while Ellison notched eight digs and seven kills. Jennifer Li '11 rounded out the attack with six kills as Hunting registered 13 digs and two aces. Melnikow capped off the match with 34 assists, eight digs, and two aces.

—Mindy Brauer, DAPER Staff



The world's leading catastrophe risk experts.

Whether it's a natural disaster like a hurricane, tornado, or earthquake, or a man-made disaster such as a terrorist act, our models use the most advanced science to provide the richest set of predictive risk analytics and services for insurance, capital markets, corporate, and public policy risk management decisions.

Meet With Us.  
Learn About Us.  
Join Us.

## Risk Management Solutions

Where: (1-246)  
Building 1, Second Floor,  
Room 46  
When: October 1, 2008 at 6:00 PM

Word.

The Tech

Established 1881

join@tt.mit.edu

W20-483, 617-253-1541

Solution to Crossword

from page 8

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H | E | R | B |   | C | O | K | E |   | C | R | A | S | H |
| E | V | I | L |   | A | B | E | T |   | L | I | T | H | E |
| R | E | P | E | L | L | E | N | T |   | A | G | L | O | W |
| O | N | E | D | A | Y |   | Y | O |   | U | R | S | H | I |
|   |   |   |   |   | U | P | S |   |   | A | P | T |   |   |
| S | T | E | R | N | S |   | S | C | I | S | S | O | R | S |
| W | I | L | L |   | C | O | M | E | I | N |   | S | A | T |
| A | B | A | S | H |   | A | C | T |   | R | A | T | I | O |
| M | E | T |   |   | B | U | T |   | Y | O | U | W | I | L |
| P | R | E | T | Z | E | L | S |   | P | L | E | A | S | E |
|   |   |   |   |   | O | I | L |   | R | T | E |   |   |   |
| B | E | A | T | T | H | E | A | I | R | P | O | R | T |   |
| H | A | R | S | H |   | O | P | P | O | S | I | T | E | S |
| A | B | A | T | E |   | R | E | I | N |   | E | T | N | A |
| S | A | T | Y | R |   | N | E | D | S |   | D | O | O | R |

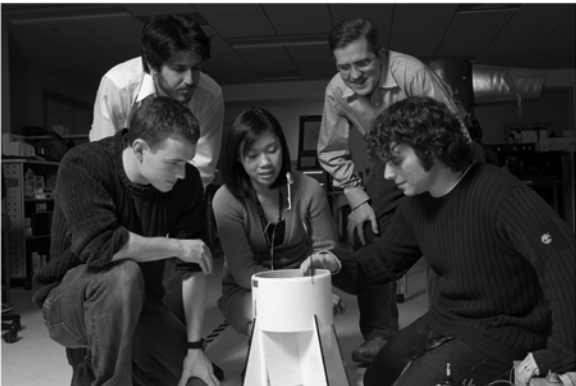
Solution to Sudoku

from page 7

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 7 | 1 | 2 | 3 | 4 | 8 | 9 | 5 | 6 |
| 3 | 9 | 5 | 6 | 1 | 7 | 4 | 2 | 8 |
| 4 | 6 | 8 | 9 | 5 | 2 | 7 | 1 | 3 |
| 5 | 7 | 1 | 4 | 9 | 6 | 3 | 8 | 2 |
| 8 | 3 | 6 | 7 | 2 | 5 | 1 | 9 | 4 |
| 2 | 4 | 9 | 8 | 3 | 1 | 6 | 7 | 5 |
| 6 | 2 | 7 | 1 | 8 | 3 | 5 | 4 | 9 |
| 1 | 5 | 4 | 2 | 6 | 9 | 8 | 3 | 7 |
| 9 | 8 | 3 | 5 | 7 | 4 | 2 | 6 | 1 |

What are you doing during IAP?

Work with MIT alumni through the Externship Program!



Externship opportunities available **NOW!**  
<http://alum.mit.edu/students/externships>  
**DEADLINE: Wednesday, October 8, 9 a.m.**

Sponsored by: ALUMNI ASSOCIATION



SPORTS

MIT Football Beats Nichols in Pounding Rain Saturday 43-42

By James Kramer  
DAPER STAFF

Rookie kicker and linebacker Peter W. Gilliland '12 capped an amazing fourth-quarter comeback with a

37-yard field goal in the driving rain to lead MIT past Nichols College, 43-42, in a New England Football Conference Boyd Division contest at Steinbrenner Stadium on Saturday. The victory marked head coach Dwight Smith's 100th career win, while MIT upped its record to 3-1 for the first time since 1988.

Gilliland's conversion closed out an 11-play drive and ended with just 14 seconds remaining in regulation. Richard A. Mancuso '12, who finished with 149 yards passing, set up the game-winning finish with runs of three and five yards respectively.

MIT earned the chance for the win after a tremendous defensive stand on the Bison's last full drive of

the game. After forcing Nichols to convert a fourth-and-seven from the MIT 33-yard line with just over three minutes left on the clock, William J. Gibson '10 made the defensive play of the afternoon with the game's only sack. The change of possession sparked the MIT bench as well as the spirited and wet MIT crowd.

Sophomore Kevin Oberg shined at quarterback in the loss for Nichols. Oberg, who finished the game 21-of-31 with four touchdowns and an interception, opened the scoring with a 26-yard completion to sophomore Langston Little midway through the first quarter. MIT responded with a nine-play, 67-yard drive that ended with DeRon M. Brown's '10 first touchdown of the day and tied the score at 7-7.

It took only three plays and 42 seconds for the Bison to reclaim the lead as Oberg connected with Colton

Football, Page 15



Mark E. Artz '10 passes the ball during MIT's game against Brown University on Sept. 25. The Engineers lost 15-7.

ALLISON M. ALWAN

Women's Soccer Shuts Down WPI, 3-0

Alisha D. Lussiez '12 collected a pair of break-away goals just three minutes apart in the first half to lift MIT to a 3-0 victory over the host Worcester Polytechnic Institute in New England Women's and Men's Athletic Conference (NEWMAC) women's soccer action on Saturday afternoon.

After WPI had mustered five of the game's first six shots, Lussiez took control of the game. In the 31st minute, she took a feed from Erica W. Little '11, got behind the defense, and buried her third goal of the season. In the 34th minute she came up with a ball that was deflected off a WPI player and went in alone for her second goal of the half.

Lauren R. Hernley '11 provided MIT with insurance in the 77th minute as she recovered a loose ball inside the 18-yard box and tucked it low into the goal for her first career goal.

MIT goalkeeper Stephanie V. Brenman '09 notched five saves en route to her third shutout of the season.

—James Kramer, DAPER Staff

Field Hockey Falls to WPI, 3-2, in NEWMAC Opener

Maggie Elbag scored off of a penalty corner with 15:48 left to lift WPI to a 3-2 win over MIT in a soggy afternoon of NEWMAC field hockey action on Jack Barry Field Saturday. The game was the conference opener for both teams.

The teams battled at midfield for much of the first half until Anna H. Teruya '12 finally broke through, scoring on a penalty stroke 26 minutes into the game. It was the eighth goal of the season for the MIT freshman. MIT's slim lead would hold up for the remainder of the half, as they outshot WPI 9-3 and held a 6-0

advantage on penalty corners.

Sasha Markhovsky put WPI on the board just over a minute into the second half, scoring on a feed from Paige Hanson. MIT would regain the lead when Danielle C. Smith '11 deflected in a shot from Nirupama Yechoor '10 in the 48th minute. Jackie McDonough scored for WPI just over a minute later to tie the game at two, setting up Elbag's game winner.

MIT goalkeeper Keri A. Dixon '12 had five saves in the losing effort. Betsy Ray picked up the win in net for WPI, stopping six shots.

MIT will look to bounce back today when they host Endicott College.

—Greg McKeever, DAPER Staff

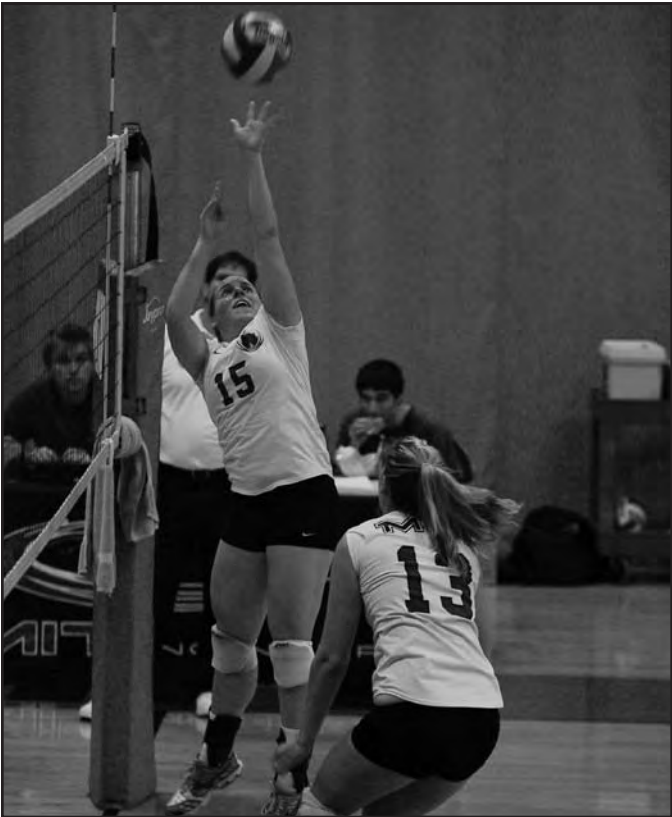
Men's Soccer Remains Unbeaten With 2-1 Win Over Clark

MIT remained unbeaten and extended its winning streak to a program-best 10 games with a 2-1 victory over host Clark University in a New England Women's and Men's Athletic Conference (NEWMAC) game on Saturday. Ranked 10th in New England by the latest National Soccer Coaches Association of America (NSCAA) poll, the Engineers improved to 9-0-1 on the year and 1-0 in conference play.

MIT opened the scoring just under 10 minutes into the game when Christian W. Therkelsen '11 one-timed a cross from Zachary E. Kabelac '12 and lofted it into the far corner of the net. Clark's Brian Doenmez had a chance to tie it up minutes later, but his direct kick was turned away on a diving save by MIT goalie Thomas S. Caldwell '09.

Therkelsen increased the Engineers' lead to 2-0 in the 17th minute. The sophomore forward collected a punt from Caldwell at midfield and dribbled it inside the Clark penalty area where his shot bounced off keeper Peter Wise's hands and into the back of the net.

Sports Shorts, Page 15



RACHEL FONG—THE TECH

Barden E. Cleeland '10 sets up the ball for Catherine Melnikow '10 during the Engineer's game versus Connecticut College on Sept. 27. MIT lost 3-2.

UPCOMING HOME EVENTS

Tuesday, Sept. 30, 2008

Women's Tennis vs. Babson College 4:00 p.m., duPont Courts  
Field Hockey vs. Endicott College 6:00 p.m., Jack Barry Field  
Women's Volleyball vs. U.S. Coast Guard Academy 7:00 p.m., Rockwell Cage

SCOREBOARD

| Field Hockey                          |   |
|---------------------------------------|---|
| Saturday, Sept. 27, 2008              |   |
| Worcester Polytechnic Institute (5-3) | 3 |
| MIT (4-6)                             | 2 |

| Men's Soccer             |   |
|--------------------------|---|
| Thursday, Sept. 25, 2008 |   |
| MIT (8-0-1)              | 4 |
| Emmanuel College (3-3-1) | 1 |
| Saturday, Sept. 27, 2008 |   |
| MIT (9-0-1)              | 2 |
| Clark University (5-2-2) | 1 |

| Football                 |    |
|--------------------------|----|
| Saturday, Sept. 27, 2008 |    |
| Nichols College (2-2)    | 42 |
| MIT (3-1)                | 43 |

| Women's Soccer                        |   |
|---------------------------------------|---|
| Thursday, Sept. 25, 2008              |   |
| MIT (2-5)                             | 1 |
| Bridgewater State College (3-1-2)     | 3 |
| Saturday, Sept. 27, 2008              |   |
| MIT (3-5)                             | 3 |
| Worcester Polytechnic Institute (5-5) | 0 |

| Sailing                            |           |
|------------------------------------|-----------|
| Saturday–Sunday, Sept. 27–28, 2008 |           |
| Hood Trophy                        |           |
| MIT                                | 5th of 24 |

| Men's Water Polo         |    |
|--------------------------|----|
| Thursday, Sept. 25, 2008 |    |
| Brown University (4-5)   | 15 |
| MIT (3-8)                | 7  |
| Saturday, Sept. 13, 2008 |    |
| Bucknell College (5-4)   | 12 |
| MIT (3-7)                | 6  |

| Women's Volleyball              |   |
|---------------------------------|---|
| Friday, Sept. 26, 2008          |   |
| Bridgewater State College (3-8) | 0 |
| MIT (9-6)                       | 3 |
| Bates College (4-7)             | 0 |
| MIT (10-6)                      | 3 |
| Saturday, Sept. 27, 2008        |   |
| Connecticut College (9-5)       | 3 |
| MIT (10-7)                      | 2 |
| Springfield College (13-2)      | 3 |
| MIT (10-8)                      | 0 |